PATTERNS OF MEDIA PERFORMANCE

Comparing the Contribution of Mass Media to Established Democracies Worldwide

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Chapter 1:
Introduction

Mass media are an omnipresent element of our everyday life, and the modern world cannot be imagined without them. Watching television, listening to the radio, readings newspapers or magazines and surfing on the Internet are part of the daily routine for most citizens, at least in industrialized countries. Hence, there seems to be a widespread consensus that media are important for democracy, and increasingly so in today's complex, highly differentiated societies. Media have moved to the center of the social, economic and political life, and they constitute the key carriers of democratic public spheres. Therefore, contemporary democracies are often dubbed "media societies" (Habermas 2006: 419). The cause of this phenomenon is the fact that modern democracies are to a greater or lesser degree based on the principle of representation because they are too big for a large proportion of the citizens to always directly participate in all democratic decisions (Von Rautenfeld 2005: 184). Manin (1995) argues that modern representative democracies have gone through two major phases of transformations since their foundation. First, in the middle of the 19th century, with the ongoing industrialization and extension of universal suffrage, parliamentarianism was replaced by the party democracy. Parliamentarianism was characterized by a political elite who was mainly elected on the basis of prestige or social status (Manin 1995: 260). Thus, political representatives stood out from the crowd but at the same time, the relationship to their voters was personal, direct and apolitical. Accordingly, the elected were highly independent of their constituents' wishes and political debates only took place within the secluded parliamentary arena. In party democracies, by contrast, the society was split into solid social milieus, which were represented by their respective parties in the political sphere and by party organs in the public sphere (Manin 1995: 267f.). Members of parliament no longer belonged to a superior elite but rather acted as party delegates or bureaucrats who had to promote their party's program. Blumler and Kavanagh

(1999: 211) call this "the golden age of parties". The second transformation took place in the middle of the 20th century. In the wake of modernization, a change from the party to the so-called audience democracy became evident (Manin 1995: 279). As the strongly separated social milieus slowly dissolved, mass parties lost their stable constituencies whom they could directly influence. This so-called dealignment process is a consequence of various trends associated with modernization such as secularization, growing levels of education and prosperity, rise of the tertiary sector, commercialization and individualization (Dalton et al. 1984). Accordingly and similar to the former days of parliamentarianism, the distance between elites and citizens is growing[1], and elections focus more on more on the personal characteristics of single candidates. These act increasingly independently from their parties' programs and communicate and present themselves to the voters more directly in the public sphere (Manin 1995: 280f.). This means that today the communication of political affairs primarily takes place via the mass media, which have mostly freed themselves from direct partisan ties and to which the vast majority of the fluid and fragmented electorate turns to receive political news (Bennett and Entman 2001; De Vreese and Semetko 2004: 14; Froehlich 2001: 21). To put it simply: „It is not possible to advance even the most limited and formal definitions of democracy which do not recognise the integral role of the media to the actual functioning of all its elements" (Sparks 1995: 45). Chan (2001) is even more to the point. He notes that a „democracy in the contemporary society is by definition a mediated democracy, with the media serving as a means of information and as a means of expression" (Chan 2001: 115). This short excerpt already gets to the heart of what the role of mass media in a democracy consists of according to normative thinking. As will be argued in the course of this study, there are two central functions of media in democracy: *information* and expression, or *diversity*, as it will be referred to here. These two media functions will be of key importance throughout this book.

[1] In the sense that a candidate is no longer just one among many partisans.

Hence, following a research tradition and strategy famously specified by McQuail (1992), the present study deals with the democratic requirements that mass media are supposed to fulfill. It examines a) by what standards the democratic performance of mass media can be assessed in a systematic, comparative framework, b) to what degree media actually live up to these standards in a cross-national perspective and c) how that affects different aspects of the democratic process. So far, the literature is somewhat vague concerning the first question and highly controversial with regard to the second and the third question.

On the one hand, the media's actual democratic performance is very often criticized as flawed and even seen as a threat to democracy. One of the first and most prominent representatives of this position is Habermas (1962) but he has been followed by numerous scholars (see e.g. Champlin and Knoedler 2006; Curtis 2004; Jackson and Stanfield 2004). Gunther and Mughan (2000), for example, call it a paradox that media have actually been crucial in promoting democratization processes in many transition countries but that at the same time, they do not play their part in enhancing the quality of democracy in more mature democratic societies. The reasons for such opinions are twofold. First, in terms of media structures, media systems are increasingly controlled by a few large and private media conglomerates, and it is feared that this reduces the diversity of viewpoints in the public sphere or the independence of media from political or economic players (Champlin and Knoedler 2006; Habermas 2006; Petley 2004; Woods 2007). Second, in terms of media content, mass media adapt their political news coverage to criteria which seem to attract the highest attention of a wide public, namely the so-called news values. As a consequence, as plenty of studies have shown, political news focus more and more on personalization, privatization, scandals and sensational events as well as the conflict and competition between political actors and their strategies (game framing) instead of substantive political issues (Bennett 2003; Gerhards 1994; Gulati et al. 2004; Habermas 2006; Imhof 2002; Jarren 1998; Gunther and Mughan 2000; Rhee 1997). And even if substantive issues are covered they are presented in an episodic style, e.g. by re-

porting about individual stories or fates detached from the wider social context (Iyengar 1991). All of this is taken as evidence that the mass media fail to meet their democratic duties, and – even worse – it is supposed that political news coverage fosters the citizen's disengagement, mistrust and a crisis of political legitimacy (Cappella and Jamieson 1997; Gunther and Mughan 2000: 427; Kleinnijenhuis et al. 2006; De Vreese and Semetko 2004: 16). Norris (2000) gives a good overview of all of these supposed trends and summarizes them under the term "videomalaise". They are sometimes also more generally referred to as 'commercialization' or 'mediatization'. For another comprehensive review of the respective literature see Kriesi et al. (2012, chapter 8).

On the other hand, other authors argue against judging media by highly normative and unrealistic expectations that media have neither the capacities nor the motivations to fulfill. Graber (2003: 148) articulates this most clearly:

> „Rather than being a venue for teaching civic knowledge, the media, as currently structured, are for-profit enterprises that must be concerned about their financial bottom line. […] Under these circumstances, the surprise is not that media have failed to perform the functions that are deemed so essential for […] democracy, but that they have retained a public-service orientation at all."

Taking the same line of argument, it is claimed that the democratic ideal of the well-informed and eagerly participating citizen is not accurate to capture how politics works in advanced, industrialized societies (Graber 2004: 561). Only a very small part of the population is actually interested in receiving substantive and detailed political information. Most citizens, by contrast, base their political decisions on very limited and selective knowledge and heuristics (Ettema 2007; Graber 2004; Lupia 1994). Accordingly, a realistic model of democratic citizenship in today's social context would be that of the so-called "monitorial citizen" (Schud-

son 1998).[2] Monitorial citizens do not need to pay close attention to politics all the time. They only have to follow the news often enough to notice when their interests are in danger and when political action is therefore required (Schudson 1998: 310f.). And this, as Schudson (2008: 2) holds, is actually more likely when the news is presented in a newsworthy way. Sensationalist media coverage of drastic events, such as natural disasters or political scandals, may be more successful in engaging people and changing their minds than the best in-depth political analysis. Following up on Schudson (1998), Zaller (2003) calls for a "Burglar Alarm news standard" rather than a "Full News standard". „The key idea is that news should provide information in the manner of attention-catching 'burglar alarms' about acute problems, rather than 'police patrols' over vast areas that pose no immediate problems" (Zaller 2003: 110). In light of these assumptions, high-quality journalism does not only seem to be unprofitable for media organizations but not even really necessary either.

Nevertheless, Graber (2004) actually outlines for the U.S. context – which is mostly thought of as the worst case – that the amount of substantive political news in the mass media is not as low as usually expected and that there is a wide range of different channels of communication through which citizens can receive political information and observe government actions. Furthermore, studies rate only one third of the political news coverage as qualitatively poor while one third is judged to be mediocre or excellent, respectively (Graber 2004: 554). This means that for monitorial citizens, the media news digest might be adequate enough. Norris (2000) supports this. In her comparative study she follows the claims of the so-called "mobilization theory" (Newton 1999) and finds that contrary to the conventional wisdom, media news consumption is positively related to political knowledge and mobilization (Norris 2000:

[2] In a way that is surprisingly congruent with Manin's (1995) metamorphosis of representative democracy outlined above, Schudson (1998) describes how conceptions of the ideal form of civic participation changed throughout the history of representative democratic government in the United States. In a later essay he actually equates each of these different historical ideal types with one character from the famous TV show "The Simpsons" (Schudson 2006).

17). Further empirical studies also seem to contradict the rather pessimistic conclusions of proponents of the videomalaise perspective (see e.g. Kriesi 2012).

Rather than adopting one or the other perspective in this important controversy, however, the starting point of this book is the observation that verdicts of the media's compliance with democratic requirements – no matter if positive or negative – mostly lack comprehensive empirical support. In other words, many studies deal with media and democracy more or less explicitly but they are mostly limited to the analysis of single or a few countries or only selected aspects of this complex field. Thorough, comparative studies are largely missing. As a consequence, it seems that for every study finding something – say an increasing negativity of news media coverage or a positive impact of soft news consumption on individuals' level of political interest – there is at least another study finding the opposite, maybe in a different context, at a different time (see Kriesi et al. 2012, chapter 8).

One reason for the lack of large-scale cross-national studies is the limited availability of reliable comparative media data (Hallin and Mancini 2004: 16; Leckner and Facht 2010: 7; Puddephatt 2010: 43), which is something the present study admittedly struggles with as well.[3] Nevertheless, it at least attempts to provide an empirical basis for the discussion of democratic media performance. More precisely, it is guided by the following two research questions:

1. How can the performance of media and media systems for democracy be measured systematically and how does it compare across democracies worldwide?
2. How do differences in media performance actually affect the functioning of different aspects of democracy?

These two questions imply a division of the book into two parts. The first part is concerned with the first question above. Accordingly, the already mentioned aim of this book is to de-

[3] This problem cannot be stressed enough. Thus, I fully agree with Leckner and Facht (2010: 7) who call for „the development of reliable international media and communication statistics of relevance in various global fora".

velop a framework which allows assessing to what extent mass media's compliance with their supposed role in a democracy varies between more or less established democracies. At this point, a word on what I mean by mass media is in order. I consider the traditional mass media, namely the press, television and – to a lesser degree – radio. This is mainly because democratic requirements are usually defined for traditional mass media (Christians et al. 2009: 29f.). Thus, the Internet is only included where this seems possible and appropriate. Moreover, I deliberately exclude authoritarian states or countries in transition from autocratic to democratic regimes in this study because there seems to be broad consensus about the role of mass media in these political systems (see Gunther and Mughan 2000; Norris and Inglehart 2010).[4]

Probably more in line with representatives of the pessimistic videomalaise position, I will rely on normative democratic standards for media performance because they serve „well as an ideal type – that is, as a construct against which different real-world approximations can be evaluated" (Bennett and Entman 2001: 3; see also McQuail 1992: 17 or Norris and Odugbemi 2010: 12). In this sense, two key functions of media for democracy are derived from normative theory. They are referred to as the vertical and the horizontal function. While the vertical function asks for the widespread access to and provision of political information, the horizontal function requires that the diversity of different political viewpoints held in society is adequately reflected in the public sphere. The operationalization of these two functions, however, possibly rather follows the considerations of those who advocate the monitorial citizen model. Because of the comparative approach, the specific factors included to evaluate media performance are somewhat rough indicators which not necessarily make very high demands on mass media and media systems. They could also be regarded as minimal standards. Thus, the conceptualization of media performance proposed in this book might be considered as build-

[4] Media are widely considered to support the state in autocratic regimes and facilitate democratization processes in countries in transition.

ing a bridge between the two opposing camps of the controversy outline above or, to use McQuail's (1992: 17) words, between normative standards and objective research.

The second part of the book relates to the second research question. Once democratic media performance is measured and compared, it will be analyzed how that actually impacts different elements of democracy. There is not a lot of empirical research actually linking features of mass media to democratic outcomes across different countries. Most often, positive or negative consequences of media's failure of or compliance with democratic requirements are simply assumed without a systematic test of such claims. Moreover, democracy is a complex, multidimensional phenomenon (Bühlmann et al. 2011a, 2012). Neither might media performance affect all of these democratic dimensions equally, nor can the two media functions be expected to have the same influence on the same aspects of democracy. Sweeping generalizations of the relationship between media and democracy might therefore be inappropriate. Hence, the objective of the second part of the present study is to provide evidence that gives more insights into the effective importance of media for various aspects of democracy, being aware that the difficulty of keeping the two concepts apart makes this a challenging endeavor. Nevertheless, the results will hopefully allow drawing conclusions about whether the controversy between video- or media malaise and mobilization theorists about what to make of the current state of media in established democracies is actually worthwhile. That said, however, it is not the intention of this book to take sides and assert which perspective is right. Its goal is to contribute to the debate by offering it a more solid empirical grounding.

To conclude this introductory chapter, I would like to give a brief overview of the following eight chapters. Chapter 2 positions this study in the current field of comparative media research and provides a review of existing studies which focus on media and democracy in a cross-national perspective. In a first part the discussion shows that previous empirical assessments of democratic media performance have either been purely qualitative or have had a

limited conceptual scope. In this context, the distinction between analyses on the structural and on the content level is introduced. While the former refers to features of the media system (media landscape and infrastructure), the latter comprises the output of media outlets, i.e., their news coverage. The distinction between these two levels is crucial in the present study and will be used continuously. A second part of chapter 2 summarizes different strands of research which link media-specific variables to democratic outcomes. Again, it is argued that even though giving interesting insights, these contributions do not provide a comprehensive picture of the relationship between media and democracy. While the first part of chapter 2 is important for the first research question guiding this book, the second part relates to the focal point of the second research question on page 6.

The subsequent four chapters form the first part of this book, which includes the definition, measurement and comparison of democratic media performance. Chapter 3 develops the conceptual framework of the present study. In a first step, drawing on the normative literature about media and democracy, the supposed democratic role of mass media according to different models of democracy is discussed. Next, these different conceptualizations are synthesized and consolidated to two key functions of media for democracy. Accordingly and as already mentioned, I argue that there is basically a vertical and a horizontal function that media are required to fulfill in a democracy from a normative perspective. In the remainder of chapter 3 each function is further justified and specified in more detail by various components and constitutive elements, both on the structural and the content level.

Chapter 4 turns to the operationalization of the two media functions and discusses the research design and methodological approaches chosen to examine media performance. Again, the distinction between the structural and the content level is important here. More specifically, since the media's compliance with their democratic functions is assessed and studied on both levels of analysis, the country samples, the data and the indicators used for each type or level of analysis are explained separately. The analysis of democratic media performance on

the structural level is based on secondary data on media system characteristics for the years 1990 to 2008 and for two different samples ranging from 47 to 24 countries. The data for the analysis of democratic media performance on the content level, by contrast, comes from a content analysis of 50 newspapers from ten countries (usually five newspapers per country) during 2008, which was conducted by the author herself.

The next two chapters proceed to the empirical analyses and they present the results of the first part of this book. While chapter 5 exclusively deals with the structural level, chapter 6 focuses on the content level. For each level of analysis, the corresponding chapter is composed of the following tests. First, factor analyses provide evidence as to how the indicators relate to each other and whether this conforms to the theoretical dimensions, i.e., the two media functions. Second, descriptive and cluster analyses allow for a comparison of media performance across different countries and the identification of various patterns of democratic media performance. And third, explanations for the differences in media performance are examined by means of multivariate regressions.

In chapter 5, the correlation structure of the system-level indicators for media performance really reproduces the two theoretical media functions. But whereas the vertical function is one-dimensional, the horizontal function is not. Instead, the respective indicators form two latent factors, according to two theoretical components of the horizontal function, quantitative and qualitative media diversity. Furthermore, countries vary greatly with respect to their comparative degree of fulfillment of the vertical and the horizontal media function and a simultaneous maximization of both does not seem to be possible. Countries either score low or moderately on both functions, or perform well with respect to only one of two functions or its components, respectively.

Chapter 6 again shows that the indicators for media performance can not only be theoretically but also empirically divided into the two media functions by factor analysis. But contrary to

the structural level in chapter 5, it is the vertical function that splits into its two components on the content level, namely the amount and the balance of information. Furthermore, the findings in chapter 6 indicate that democratic performance in terms of media content varies more across than within countries. Hence, although the characteristics of individual newspapers shape the democratic quality of their output, the broader news culture, political traditions and also structural media performance are more decisive. Finally, different configurations of the two media functions and thus multiple types of media performance are also evident with respect to the content level.

Chapters 7 and 8 form the second part of this book, which focuses on the question of how media performance relates to the well-functioning of democratic regimes. To this aim, chapter 7 first provides a definition of the quality of democracy. Drawing on the theoretical concept of the Democracy Barometer (Bühlmann et al. 2011a, 2012), it is argued that a high-quality democracy relies on the maximization of nine functions or aspects. Although all of these might be affected by democratic media performance, particular attention will be paid to four of them. In a next step, chapter 7 justifies why and derives hypotheses regarding the effects of the two media functions as measured in chapters 4 through 6 on the four aspects of democracy. More specifically, the vertical media function is expected to enhance the level and equality of political participation as well as transparency. The horizontal function, by contrast, is assumed to promote the strength of the civil society and the adequacy of political representation. Finally, chapter 7 also discusses the design applied to test these hypotheses. On the one hand, the data used to operationalize the dependent variables and control variables is presented. On the other hand, the statistical methods used are outlined.

In chapter 8 the theoretical expectations from chapter 7 are examined by means of multivariate regression analyses. All hypotheses are tested first in a purely cross-sectional and consequently a panel data framework. Due to the low number of countries for which content level data exists, chapter 8 is limited to the impact of structural media performance on the four el-

ements of democracy. The findings suggest that there is empirical support for most of the hypotheses. Media performance in terms of the vertical function indeed has a positive effect on the extent of political participation and transparency but does not seem to be related to the equality of participation. In addition, media performance in terms of the horizontal function has the expected positive influence on political representation. The results are inconclusive and contradictory with respect to the strength of the civil society, however. While the first component of the horizontal media function seems to lead to more interest group organization, the opposite can be observed for the second component of the horizontal media function.

Finally, the concluding chapter 9 summarizes and discusses the findings and implications from both parts of the present study, reflects on its limitations and provides an outlook for future research in the field.

Chapter 2:
The state of comparative research on media and democracy

The aim of this chapter is to shed light on the state of research and the existing empirical literature regarding media and democracy. This is of course a very wide field. It is therefore first of all important to narrow the subject down to what is really of interest to the present study. In this sense, it needs to be emphasized once again that I am primarily concerned with empirical studies with a comparative focus and a broad perspective of media and democracy. This is further outlined in the following section. The remainder of the chapter then consists of a discussion of the most important contributions within this delimited area of research. The discussion is divided into two sections. Section 2.2 deals with studies which assess the democratic performance of mass media and media systems across countries, either adopting a qualitative or a quantitative approach. This speaks to the first of the two research questions highlighted in chapter 1 and, accordingly, the first part of this book. Section 2.3, by contrast, presents different strands of research which examine the influence of media-related factors on various democratic and political outcomes in a cross-country perspective. This is relevant for the second research question from chapter 1 and the second part of the present study, respectively.

2.1 Delimiting the research field of interest

Many scholars have devoted much of their time studying the interplay between media and democracy. This has even prompted Curran to claim that „media and democracy is one of the most intensively ploughed areas in media studies" (Curran 2011: 1). There are indeed countless studies which can somehow be related to this question. Seven years ago Graber (2005) conducted a meta-analysis of political communication studies and came to the following conclusions: media research has mostly focused on election campaigns, media effects on citizens' levels political knowledge and opinion formation (e.g. agenda-setting, priming and framing),

"problem areas" (Graber 2005: 484) such as media coverage of international conflicts or disadvantaged groups as well as more recently the new media. This short summary reveals that the empirical literature has illuminated the media's impact from different angles of the democratic process but rarely aimed at providing a comprehensive and systematic picture of the media's role for democracy. Accordingly, borrowing from Lippman (1922), Graber considered media research to be „like the beam of a searchlight that moves restlessly about, bringing one episode and then another out of darkness into vision" (Graber 2005: 495). But analyses of media coverage of such highly salient and exceptional issues like elections or wars can hardly be generalized (Norris 2000: 54; Vowe and Dohle 2007: 344). Moreover, as Graber (2005: 496) conceded herself, most of the research is based on a specific country context, mostly the United States, and truly comparative studies are scarce. And even though the body of cross-national media research is rapidly and constantly growing (see Engesser and Franzetti 2011) this observation is still true, at least in terms of the central research question of this book. Just recently Curran (2011: 1) stated that „most books on media and democracy are either theoretical or grounded in the experience of one nation". In addition and despite offering valuable insights, the comparative studies that do exist in this field are often limited in one way or another. First, like many non-comparative studies (see above), they usually focus on single issues. Second, they mostly include only a handful of countries and usually the extreme case of the United States, where – due to specific cultural, political and economic characteristics of that country – the media-related processes supposed to inhibit the quality of democracy are most pronounced (Mancini 1999: 238; Scammell 1998: 260). Third, a number of books which are called comparative and consider a larger range of countries simply take the form of a collection of individual country chapters (e.g. Gunther and Mughan 2000; Dobek-Ostrowska et al. 2010; Hallin and Mancini 2012).

This chapter exclusively focuses on studies which try to avoid these limitations. This means that of interest here is only research which explicitly links the media to the functioning of

democracy in a wider sense and analyzes these links within a single, common framework across at least ten countries (with two exceptions; see section 2.2.2). This number of countries – admittedly somewhat arbitrary – derives from the fact that the literature with such samples is rather manageable whereas the number of analyses covering fewer countries is vast, to say the least. To cite a few examples, I will therefore not be able to discuss studies which compare election campaign coverage in Germany, the United Kingdom and the United States (Esser and D'Angelo 2006), the norms and perceived roles of journalists in Germany, Great Britain, Italy, Sweden and the United States (Donsbach and Patterson 2004) or the impact of television news on political knowledge in Denmark, Finland, the United Kingdom and the United States (Curran 2011, chapter 3), although there is no doubt that they, and this kind of literature in general, provide important knowledge for the field of cross-cultural media research and political communication.

2.2 Comparative assessments of media performance

To repeat, the following overview of the state of the art is limited to comparative research on media systems and on media and democracy which have a wide geographic scope and evaluate media and media systems according to democratic standards. Some of the most influential contributions which fit this perspective are purely qualitative. They are the subject of the next section 2.2.1. The subsequent section 2.2.2, by contrast, deals with studies with a clearly quantitative approach. As will be shown, these are often confined to certain aspects of democratic media performance, especially either media structures or media content.

2.2.1 Qualitative studies

Among the numerous studies that might be discussed in this section, two deserve particular attention. The first is Siebert et al.'s (1956) seminal *Four Theories of the Press*, the other Hallin and Mancini's (2004) more recent but probably just as widely acclaimed *Comparing Media Systems*. Both of them try to give a comprehensive picture of the mechanisms at work

when it comes to media and democracy or political regimes in general. So strictly speaking, their aim is not so much to explain how mass media contribute to the well-functioning of different democracies but rather to look at the interplay of media and politics and build typologies thereof.

Over half a century ago Siebert et al. (1956) developed their famous typology of media systems in light of different political regimes. Let us briefly look at their "four theories of the press". First, according to the *authoritarian theory*, media and journalists are directly controlled by the government and heavily censored. Second, media also depend on the government and are supposed to propagate the state's ideology in the *Soviet communist theory*. However, control is less rigorous, and media are subject to self-regulation and a certain duty towards the audience. Third, the *social responsibility theory* entails a strong public service ethos. Media have an interdependent relationship with the government and are supposed to provide citizens with accurate, objective and diverse information. Fourth, in the *libertarian theory*, journalists are allowed to act autonomously. Media are free to publish whatever they want, and they survey the actions of the political rulers. In short, the four theories range from a highly dependent to a highly independent press from the state.

Siebert at al.'s (1956) typology has been cited and used very often. But it has also been widely criticized. The main reproach is that the four theories are not applicable to the contemporary world and are based on a political and cultural bias (Christians et al. 2009: 4; McQuail 1992: 66). Accordingly, Ostini and Fung (2002: 42) hold that „theoretical models should not be bounded by dominant ideological perspectives and hinged on certain historical blocs – namely those of Communism and the Cold War – and subsequently void with the demise of these concepts". Furthermore, the authors assumed an evolutionary development of media systems away from the authoritarian and the Soviet to the social responsibility and the libertarian model which is problematic. Finally, Siebert et al. (1956) entirely neglect economic influences and only look at structural factors of media systems (Ostini and Fung 2002: 44,

46). Nevertheless, the four theories of the press remained influential for a very long time and have prompted various refinements, revisions and follow-up studies (for a good overview see Christians et al. 2009: 6-14), including Ostini and Fung (2002) themselves.

Thus, it is fair to say that Siebert et al. (1956) were omnipresent until Hallin and Mancini (2004) came up with a new typology of media systems almost 50 years later. The latter gained such widespread popularity that it seems to have become the new "bible of comparative media studies" (Curran 2011: 28). Hallin and Mancini (2004) provide a rich analysis of the development of media systems in 18 Western societies against the backdrop of their respective political-institutional and historical contexts. The analysis builds on four dimensions: 1) the degree of commercialization of media systems (especially the development of a mass circulation press), 2) the so-called political parallelism, i.e., the independence of the media from the political sphere and from political divisions, 3) the professionalization of journalism and 4) the degree of state control or media regulation (Hallin and Mancini 2004: 27).

On the basis of these dimensions, the authors design three intuitively plausible models of media systems to which they assign the countries scrutinized. First, the *Mediterranean or polarized pluralist model* is mainly found in Southern European countries (France, Greece, Italy, Portugal and Spain). These are characterized by a broad and fragmented spectrum of political forces as well as a strong social divide within the society, both of which are related to relatively young democratic and liberal institutions. Accordingly, neither a strong commercial mass press nor a professionalized journalism has ever really emerged in these countries and political parallelism is still wide-spread. Furthermore, the state traditionally plays a strong role so that media are highly regulated. Second, the *North/Central European or democratic corporatist model*, to which Austria, Belgium, Denmark, Finland, Germany, the Netherlands, Norway, Sweden and Switzerland belong, has three somewhat paradoxical features: 1) the coexistence of partisan newspapers and a commercial mass press, 2) correspondingly, the

coexistence of political parallelism and a high degree of professionalized journalism and 3) the coexistence of early democratization and liberalization with an active, interventionist state (e.g. a strong welfare state). The first two features can be attributed to the formerly highly organized and institutionalized political, economic and religious cleavages structuring these societies as well as to their long tradition of negotiating and power sharing between different interest groups, political parties and state authorities. The democratic corporatist countries are thus mostly multi-party systems and consensus democracies. The third model, finally, is the *North Atlantic or liberal model* (Canada, Ireland, United Kingdom and United States). The early evolving industrialization and democratization in the corresponding countries led to an equally early development of a politically neutral mass press, professional journalism and limited state interventionism in the media sector. Politically, these countries are predominantly two-party systems and majoritarian democracies. Roughly, the three models can be placed on the ends and the middle position of a continuum ranging from close proximity of the media to the political sphere to close proximity to the economic sphere. But Hallin and Mancini (2004) emphasize that their typology should not be regarded as a hierarchy even though they recognize that a certain convergence into the direction of the liberal model can be observed. Thus, one cannot help but reading into their analysis that they would at least consider the Mediterranean or polarized pluralist model to be inferior to the other two.

Despite its huge acclaim, Hallin and Mancini's (2004) typology has also met with doubts and criticism. Curran (2011), for example, argues that the authors artificially overstate the differences between and simultaneously downplay the differences within the three types of media systems. He points out that the countries of the liberal or North Atlantic model vary considerably with regard to many institutional characteristics, such as the party system, the degree of federalism, the electoral system, the type of democracy (parliamentary vs. presidential), the broadcast system and the tradition of tabloid newspapers (Curran 2011: 43). He makes similar observations for the other two models, by noting that very different countries are lumped to-

gether in one model (Belgium and Sweden) whereas common features of all Western European countries such as public broadcasting are neglected. In Hallin and Mancini's (2004) defense, Curran (2011) thinks that these exclusions were probably done unconsciously: „They clearly believe that their work is driven by evidence rather than normative preconceptions. Yet, in reality it comes out of an identifiable academic tradition that is so dominant, and so little challenged, that it is largely unaware of its own partiality" (Curran 2011: 45). Nevertheless, even Curran (2011) recognizes the importance of the three models of media systems in integrating political science and media studies. In a similar vein, it has also been objected that Hallin and Mancini (2004) only included those countries into the analysis which fit well into their framework. The three models can, however, hardly be applied to the media systems in Eastern Europe, Asia, Africa and the Arab world (Blum 2005a: 8). In his essay, Blum (2005a) therefore tries to extend the three-fold typology to countries beyond the Western context and subsequently comes up with a somewhat different but still preliminary typology. It consists of six models which are defined by their position on nine different dimensions. Three of these dimensions are derived from Hallin and Mancini (2004). Without going into further detail, the six models are: 1) Atlantic-Pacific liberalism model (e.g. Australia, New Zealand, United States); 2) Southern European clientelist model (e.g. Cyprus, Greece, Italy, Malta, Portugal, Spain, and maybe some Eastern European countries too); 3) Northern European public service model (e.g. Germany as well as Benelux, Scandinavian and modernized Eastern European countries like Estonia); 4) Eastern European shock model (e.g. Belarus, Iran, Russia, Turkey Ukraine); 5) Arab-Asian patriot model (e.g. Indonesia, Morocco, Syria as well as the former regimes in Egypt and Tunisia); 6) Asian-Caribbean commando model (e.g. Burma, China, Cuba, North Korea, Vietnam).

In sum, qualitative analyses of media systems and democracy can be illuminating and provide plausible analytical frameworks, especially in the case of Hallin and Mancini (2004). But they are largely descriptive and lack systematic evidence. Consequently, they should be followed

by thorough empirical examinations. For this reason, we now turn to studies which made efforts to quantify and compare democratic media performances across different national contexts.

2.2.2 Quantitative studies

This section highlights four exemplary studies which illustrate how the democratic performance of media and media systems is measured in the tradition of quantitative comparative communication research. Most studies in this field deliberately limit their conceptual scope in one way or another. For example, while some exclusively look at the diffusion of access to the media in the population, others are only concerned with the quality of policy discourses in the media. It is therefore helpful to organize the literature according to its level of analysis. The following studies can be classified with respect to whether they operate on the macro or the micro level. The macro level refers to the analysis of media systems as a whole. In this sense, news media are regarded as a political institution (Kriesi et al. 2012, chapter 7) with distinct characteristics and varying interaction patterns, which are reflected by different communication infrastructures and media landscapes. The micro level, by contrast, refers to phenomena which relate to single media organizations. Starting from this perspective, scholars might be interested in specific editorial policies, different organizational forms of newsrooms or the output of individual news outlets, i.e., their actual media coverage. Such properties of individual news organizations are not necessarily independent of a country's cultural and institutional context. Thus, they might also be aggregated to the macro level and then considered as media system features, which is usually done in cross-national studies.

Following McQuail (1992) and Voltmer (2000: 5), the levels of analysis proposed in this study distinguish between *media structures* or „the institutional arrangements in which mass communication takes place" and *media content* or in other words „the information the media are actually producing, which is usually measured by means of content analysis". While me-

dia structures are clearly located on the macro level, media content is rather associated with the micro level. The distinction between these two levels of analysis is crucial for the present contribution. It will guide the subsequent discussion of the four quantitative comparative media studies which, in my view, are among the most sophisticated or insightful in their respective research areas. Moreover, the two levels will be of major importance for the theoretical and empirical framework of this book, as developed in chapters 3 and 4 and applied in chapters 5 and 6.

Voltmer (2000) is the first study to be presented in this section. The article offers a promising approach to analyze structural media diversity in countries of the Organization of Economic Co-operation and Development (OECD). It is therefore an example for a macro-level study according to the definition above. Based on Dahl's (1971, 1998) "polyarchy" concept, Voltmer (2000) defines media diversity – or a broad marketplace of ideas – as the key criterion media need to fulfill for democracy and sets out to measure it and classify countries accordingly. In a first step, press and broadcast systems are assessed separately. For press systems, Voltmer (2000) considers indicators for the degree of media regulation and media concentration, the number of newspaper titles per capita as well as the degree to which a country's press is characterized by politically neutral newspapers and/or by an equilibrium of newspapers with different political orientations. These parameters, which in fact incorporate all of Hallin and Mancini's (2004) dimensions of media system except the professionalization of journalism, are compared for the years 1970 and 1990. Probably the most notable result is that Voltmer (2000) finds considerable cross-national variation. In a nutshell, Great Britain performs quite badly while other European countries, e.g. Denmark, Austria and Greece, score well. For broadcast systems Voltmer (2000) examines whether they are dual, i.e., whether both private and public providers are present, but also the number of providers of each type, the modes of financing and the strength of public broadcasting. Again, all of these factors are

assessed at two different points in time, namely 1980 and 1990. Differences between countries are discovered with regard to broadcast systems as well. Here, however, Iceland and Norway rank lowest whereas Western European countries such as Germany and Great Britain come off well. In a second step, the two separate evaluations are combined into a joint typology.

Overall, Voltmer's (2000) paper is inspiring and innovative with regard to the measurement of some of the indicators she uses. And even though it merely covers two points in time and some of the measures presented are somewhat crude, it is to date still the most comprehensive attempt to assess the democratic performance of media systems that I am aware of. Alternative evaluations and evaluation strategies have been proposed in later research contributions. However, these mostly present about the same kind of data in a very similar fashion as Voltmer (2000) but do not cover as many countries (such as e.g. Engesser and Franzetti 2011) or lack a sound theoretical framework (such as e.g. Färdigh 2010).

Contrary to Voltmer (2000), Aalberg et al. (2010) and Woods (2007) focus on the content level. They can therefore be cited as examples of micro-level media studies, although in the latter case the data is eventually aggregated to the macro level. These contributions also constitute the two exceptions from the country threshold established at the beginning of this chapter because large-scale cross-national analyses ($\geq$ 10 countries) are especially few and far between in this area. The majority of the comparative literature about media content is based on three to five countries, for the obvious reason that content analyses across a wide range of countries face tremendous practical obstacles (language, access to material, time and effort etc.). Aalberg et al. (2010) circumvent this problem by comparing the simple amount of political news broadcasts in six countries as collected from TV guides. More specifically, they count the number, duration and timing of news and current affairs programs in two major public service and two commercial television channels at three different points in time –

1987, 1997 and 2007 – in the following countries: Belgium, the Netherlands, Norway, Sweden, the United Kingdom and the United States. The authors' point of departure is that democracy requires well-informed citizens, which in turn depends on the flow of information from mass media. Relying on Hallin and Mancini (2004), Aalberg et al. (2010) expect differences in the availability of political information between different types of media systems and broadcasters but also general trends of convergence, both cross-nationally and across organizations. Their results indicate that overall a decline in the amount of political news over time can only be observed in the United States. However, the average number of minutes of news in the U.S. still exceeds the respective number in any of the other countries examined, even though most of the news is broadcast outside of prime time and consists of local news, which mostly focuses on crime, accidents and sport (Aalberg et al. 2010: 260-262). Furthermore, public service channels provide significantly more political news than their commercial counterparts in all six countries. Finally, the authors seem to find little support for the convergence thesis and also observe that news broadcast patterns in the United Kingdom resemble more those from other European countries than from the United States. These conclusions lead them to question the adequacy of Hallin and Mancini's (2004) three models of media systems. This, however, seems rather unjustified since in my reading, Hallin and Mancini (2004) make no assumptions about the frequency of news broadcasts. And even if they do, this would only be one of many aspects of relevance for their typology. Nevertheless, Aalberg et al. (2010) raise an important question in terms of media and democracy and their empirical approach is commendable.

The same applies to Woods (2007), who is not interested in the amount of news but rather the degree of diversity in newspaper coverage within a quite heterogeneous set of seven countries: China, Colombia, Egypt, Germany, India, Lithuania and Russia. The author actually speaks of press pluralism, which he defines as „newspaper content that contains an array of opposing viewpoints" and which he considers important for democracy (Woods 2007: 214).

In order to measure the variety of different positions in the press coverage, a content analysis of news reports of ten issues related to 9/11 in the ten largest newspapers of each country in 2001 is conducted. The codings are then aggregated to the country level by means of the so-called "index of qualitative variation (IQV)" (Woods 2007: 220). The data reveals on average, pluralism is lowest in China and Germany, moderate in Colombia and Lithuania and highest in Egypt, India and Russia. At least with respect to Germany and Egypt, these findings are somewhat surprising and rather counterintuitive. Correspondingly, associations between the Freedom House democracy score[5] and the IQV are generally weak but actually negative for six out of ten issues. Overall, there seems to be no relationship between pluralism in media content and a country's degree of democracy (Pearson's r = -0.08). However, as Woods (2007) concedes himself, these results are most likely an artifact due to the issue chosen for the content analysis. It makes sense to assume that opinions on 9/11 were less divided in the Western world than in a Muslim country like Egypt. Hence, although it is understandable that the author would have wanted to choose a topic which provoked a lot of media coverage worldwide, his actual choice is very unfortunate. It might have been more reasonable to either study comparable domestic issues or a politically and ideologically less sensitive event like for example a major natural disaster and the world community's reaction to it. Nevertheless, I think that Woods' (2007) article is noteworthy because it makes an attempt to quantify by means of a large-N content analysis (7 countries x 10 newspapers) how well media fulfill a key requirement of democracy: reflecting various points of view in their news output. Moreover, his methodological approach is original although there is a lot of room for improvement. The seemingly wrong calculation of the mean value for China is just one piece of evidence in this regard. Woods (2007) further deserves credit for trying to empirically link media performance with actual measures for democracy even if a correlation analysis with seven cases

[5] http://www.freedomhouse.org/report-types/freedom-world (08/28/2012).

seems dubious. But other research testing the interaction between – at least elements of – media and democracy is rare. I will come back to this subject in section 2.3.

The final study of interest in this section is Norris (2000). This is the only contribution I am familiar with that compares a large number of countries and takes both the structural and the content dimension, or in other words the macro and the micro level, into account. Other studies that apply normative standards to examine media performance and link the national with the organizational context do usually not go beyond the ten-country threshold defined at the outset of this chapter (see e.g. Lucht and Udris 2010; Trappel and Maniglio 2011). Norris's (2000) aim is to test the general notion that media have a negative impact on civic engagement, i.e., citizens' political knowledge, trust and participation. Based on democracy theory, the author derives three basic functions of the media in a democracy, which can be evaluated by looking at the production, contents and effects of modern political communication (Norris 2000: 13). First, news *production* refers to the structural or what was also termed macro level above. It is measured by a range of indicators on the press, television and Internet market, giving insight into the transformation of the news industry since the end of World War II in 29 OECD countries. Examples are the number of daily newspapers, changes in press circulation, the competition between public service and commercial television channels, the share of news and current affairs programs relative to all programming and Internet usage (Norris 2000: 59). From this part of the analysis, Norris concludes that there are major differences between the countries but that in general, old media have not been replaced by new media. Instead, „many post-industrial societies have seen a diversification in the channels, levels, and formats of political communications that have broadened the scope, reach and audience for news, at both highbrow and popular levels" (Norris 2000: 311).

Second, news *contents*, i.e., the micro level, is analyzed by media coverage from 1995 to 1997 on the European Union (EU) in newspapers and television news bulletins from 15 and

six EU member countries, respectively. The results suggest that news coverage about the EU is not only rather scarce but usually tends to be negative as well. Third, Norris (2000) also tests how her media performance measures relate to civic engagement, which is what she means by media *effects*. This question, however, corresponds to the subject of the next section 2.3 and will therefore be discussed in 2.3.

In my view, Norris's (2000) study is innovative and a remarkable contribution to the field of comparative media research. It combines a large amount of data for many countries, which allows the author to illuminate the media's democratic performance from different angles and on different levels. It therefore provides comprehensive insight into media content and media system features in light of normative standards. However, due to data constraints, i.e., the need to rely on existing datasets, the picture remains somewhat fragmented. For instance, media content is only examined with regard to the specific issue of EU coverage. Further limitations of Norris's (2000) study can mainly be identified with respect to the third part of her analyses, the assessment of media effects. Again, this discussion is postponed to section 2.3.

In sum, all of the quantitative contributions described in this section shed light on important aspects of the topic of this study, democratic media performance, on either the structural or content level or both. But they all have more or less severe methodological shortcomings and/or problems with the coherence of their conceptual frameworks and research designs. This is especially evident when it comes to the empirical connection with democracy in the case of Woods (2007). The next section will thus further elaborate on this issue and discuss additional studies which link media attributes with political outcomes in a comparative and quantitative perspective.

2.3 Comparative analyses of media performance effects on democracy and political outcomes

Two of the four studies presented in the previous section also connect their media measures to indicators assessing the functioning of democracy or aspects of democracy. This was already briefly discussed with respect to Woods (2007) and will be outlined in more detail further below for Norris (2000). But Woods (2007) and Norris (2000) are not the only ones who try to study the relationship between media (system) features and political outcomes. The aim of this last section of chapter 2 is therefore to highlight a number of further examples.

In fact, this line of research is quite established and includes the media studies with the largest country samples. However, few of these have a very comprehensive focus, i.e., few explicitly build on media performance on the basis of normative standards and its impacts on different aspects of democratic governance. The majority of this literature uses media indicators to explain either a highly aggregated democracy measure or just one specific phenomenon related to democracy, most frequently political participation or corruption. Hence, the larger part of this section discusses such kind of studies.

Djankov et al. (2003) study the political and social consequences of different forms of media ownership. Their paper might be considered as an example for an analysis of the relationship between media systems and overall democracy with a somewhat undifferentiated approach.[6] In the first part of the paper, the authors present their quite remarkable data collection. In each of 97 countries they determined the ultimate owner, i.e., the largest shareholder, of the five largest daily newspapers, the top five TV stations and the top radio station. Based on this information, the media outlets were classified as either owned by the state, by private actors or by intermediary organizations. The final indicators reflect the share of private and state media

[6] Though to be fair, Djankov et al.'s (2003) dependent variables consist of two dimensions of democracy and also include a measure for corruption.

ownership in terms of the number of outlets and in terms of their market share. Descriptive statistics of the ownership variables show considerable variation across different world regions. But on average, two thirds of a country's newspapers are owned by private actors whereas almost two thirds of the television stations and even more of the top radio stations are owned by the state. In the second part of the paper, the impact of the degree of state ownership on various external factors is tested by regression analyses. Generally, higher shares of state media ownership are attributed with 'worse' political outcomes, including press freedom (as measured by the number of journalists jailed) and democracy (as measured by the two dimensions "civil liberties" and "political rights" of the Freedom House democracy index, see footnote 5) (Djankov et al. 2003: 367-369). However, the interpretation of the statistical evidence by the authors seems very bold and somewhat sketchy. A look at their regression tables reveals that the conclusions above only apply to state ownership of newspapers whereas the coefficients for state-owned radio and television stations are not statistically significant for most of the dependent variables. Though this is mentioned, it is heavily downplayed in the text.

The studies by Norris (2004) and Adserà et al. (2003) provide more nuanced pictures while still retaining quite a broad focus on democratic governance.

Norris (2004) explores the relationship between good governance, human development and mass media in a cross-national analysis with about 130 countries. Borrowing from democracy theory, she argues that media can foster good governance and human development if 1) they are free and independent and 2) public access to the media is widespread. The former is measured by a press freedom index compiled by Freedom House[7], the latter by a composite index consisting of daily newspaper circulation, the number of television and radio receivers per 1'000 inhabitants as well as the share of Internet users. Norris (2004) then goes on to

[7] http://www.freedomhouse.org/report-types/freedom-press (08/28/2012).

show that both of these components as well as a combination of them correlate highly positively and significantly with several indicators for good governance (political stability, rule of law, government efficiency and absence of corruption) as taken from the World Bank's "Governance Indicators" (Kaufmann et al. 1999). Furthermore, she finds even higher positive correlations between the media measure and a range of indicators for human development, such as income, health and education.[8] These results are interesting and research efforts with a similar approach are desirable. However, the implications of Norris's (2004) findings remain unclear in light of simple correlation analysis. Even though the author admits that it is difficult to draw a conclusion without causal analysis she assumes from her results that media are a driving force for democratization and human development. This is highly questionable. It seems more plausible that the causal direction goes the other way around. Hence, future attempts should focus on providing causal inference with respect to media and democracy, keeping in mind that endogeneity problems make this a challenging undertaking (see chapter 7 for more on this issue).

Adserà et al. (2003) have a similar focus as Norris (2004) but actually apply very sophisticated methods to study the impact of what they call free press circulation on different factors of the quality of government. Unlike Norris (2004), their point of departure is not a normative ideal of media performance but rather a political accountability model. The model holds that the quality of government is higher when citizens can effectively control their political leaders, which in turn is a function of the political regime type and the level of information among the public (Adserà et al. 2003: 448). Hence, the authors examine the impact of a country's degree of democracy as measured by the Polity index[9] and daily newspaper circulation per capita on different indicators for the quality of government from the International Country

[8] Indicators for human development include the United Nation's Human Development Index (http://hdr.undp.org (08/28/2012)), GDP per capita, the Gini Index, infant mortality (reversed), public health expenditures, life expectancy, adult literacy rate and secondary school enrolment.

[9] http://www.systemicpeace.org/polity/polity4.htm (08/28/2012).

Risk Guide (ICRG)[10] and – like Norris (2004) – from Kaufmann et al. (1999) (measuring the absence of corruption, the rule of law and bureaucratic quality). Moreover, they explain that „since newspaper readership can only generate real political accountability under conditions of democratic freedom, the circulation of newspapers is interacted with the existing level of democratic liberties in each country" (Adserà et al. 2003: 455). It is not entirely clear how this is done as no interaction terms are included in the regression models. In addition to press circulation and democracy, a large range of control variables accounts for various political, economic and cultural factors. The authors then test their assumptions in different empirical setups: 1) panel analysis for over 100 countries across four five-year periods, 2) cross-sectional analysis for 117 countries as well as 3) cross-sectional and panel analysis for 48 U.S. states. The results show a consistently strong and positive impact of press circulation on the quality of government, especially the absence of corruption, in all samples and with or without control variables. The degree of democracy seems to be less influential in comparison and has often insignificant estimates. I would suspect, however, that this might at least partly be due to the fact that the press variable is already interacted with democracy. Finally, Adserà et al. (2003) also further apply the method of instrumental variables (IV) and Granger causality tests to check the robustness of their findings to reverse causality issues.

A question which is related to the ones pursued by Norris (2004) and especially Adserà et al. (2003) and which has received considerable academic attention deals with the influence of media freedom on corruption (see e.g. Besley and Prat 2006; Brunetti and Weder 2003; Chowdhury 2004; Lindstedt and Naurin 2005; Treisman 2000, 2007). It therefore stands for a research field with a rather narrow focus on a specific aspect within the larger context of media and democracy. For example, Chowdhury (2004) argues that a free press brings corruption cases to the public which prompts voters in democratic states to elect corrupt politicians

[10] http://www.prsgroup.com/ICRG.aspx (08/28/2012)).

out of office and consequently, a country's level of corruption is reduced. This assumption is tested on the basis of about 80 countries, employing three widely used indicators: 1) the already mentioned Freedom House index for media freedom as independent variable, 2) Transparency International's Corruption Perceptions Index (CPI)[11] as dependent variable and 3) Vanhanen's (2003) democracy index as key control variable. Chowdhury (2004) then performs simple ordinary least squares (OLS) as well as instrumental variable (IV) and panel regression analysis for the years 1995 to 2002, using different combinations of control variables to account for possible omitted variable bias and endogeneity. Overall, it can be shown that both democracy and press freedom have the expected influence on corruption.

Lindstedt and Naurin (2005) are concerned with corruption and media freedom as well, but they argue that rather than serve as a control variable, democracy should be interacted with press freedom. Along the lines of Adserà et al.'s (2003) accountability model, and in fact similarly to Chowdhury (2004), they assume that press freedom only decreases corruption in democracies because only there do political elites have to fear sanctions if their corrupt behavior is publicized by the media (Lindstedt and Naurin 2005: 5). Accordingly, the press freedom should only have a significant impact on corruption at a certain threshold of democracy. On the basis of data for 107 countries and cross-national regression analysis with proper interaction terms, this assumption is tested and indeed confirmed. The authors use the same data for press freedom and corruption as Chowdhury (2004) but also cross-check their results with alternative indicators. In order to measure democracy, they employ the Polity index.

A completely different field of comparative media research focuses on the impact of media factors on political participation and civic engagement, also simply one aspect of the complex democratic process. For example, rightly arguing that comparative electoral research has largely neglected mass media, Baek (2009) aims to explain cross-national variation in voter

[11] http://www.transparency.org/policy_research/surveys_indices/cpi (08/28/2012).

turnout by what she calls "political communication systems". The theoretical assumption is that an environment which lowers the information costs for citizens will rather mobilize them to go to the polls (Baek 2009: 376). Systems of political communication are characterized and measured, on the one hand, by media system attributes such as the structure of the broadcast sector (private, public or dual), the audience share of public television channels, newspaper subscribers per 1'000 inhabitants and the extent of a partisan press. On the other hand, the author considers legislation regulating whether political competitors receive free airtime on television during election campaigns, whether paid political TV advertising is possible, whether political competitors receive public funding for their campaigns and whether there are campaign funding and spending limits. The relationship between turnout and political communication systems is tested by regression analyses for up to 74 countries, taking a number of institutional control variables into account. In a nutshell, Baek (2009) finds little impact of the media system factors except for a positive influence of public broadcasting but significant results for the campaign finance and access to television laws. While campaign spending limits seem to depress voter turnout, public campaign funding and free airtime for electoral contesters promote turnout.

The absence of a partisan press effect on turnout according to Baek (2009) stands in contrast to the results of Van Kempen (2007), who examines the exact same hypothesis in 16 EU countries. However, contrary to Baek (2009), the analyses are performed at the individual level on the basis of survey data. Accordingly, a measure for "media-party parallelism" is constructed by regressing respondents' party preferences on their exposure to different newspapers and television news programs (Van Kempen 2007: 307). The R^2s of all party regressions per country are weighted by the corresponding party's vote share and summed up to produce an aggregate indicator for partisan bias on the national level. In her logistic regression model the author finds a significant effect of media-party parallelism in both the press and the TV sector on participation in EU elections, while controlling for several of the usual

individual- and country-level factors employed in electoral research (party attachment, attitude towards the EU, media exposure, age, compulsory voting etc.). Moreover, an interaction term suggests that the impact of media-party parallelism is stronger among citizens with lower levels of political interest. Van Kempen (2007) further conducts a series of robustness tests to validate her results. Unfortunately, no effect sizes are presented although this is important to correctly interpret interaction effects (see Brambor et al. 2006). In addition, it would have been appropriate to at least complement the empirical analysis by a multilevel approach even though this is of course difficult with a sample of only 16 countries.

Coming back to Norris (2000), the third part of her study may be assigned to this area of research, the cross-national comparison of media effects on political participation. But unlike both Baek (2009) and Van Kempen (2007), Norris (2000) is not only interested in electoral turnout but in how civic engagement defined more broadly is influenced by her media performance measures, which are evaluated in the previous parts of her book (see the respective discussion in section 2.2.2 above). To this aim, the content analysis data is combined with indicators for media consumption and civic engagement from different international surveys in correlation and regression analyses. On the aggregate country level, negative media coverage seems to decrease public confidence in the EU and its institutions. However, on the individual level, Norris (2000) finds that contrary to the conventional wisdom, high media news consumption generally corresponds with more political knowledge, higher trust in the government and the political system and more political activity (Norris 2000: 313f.). She further assumes that media news and civic engagement are linked in a two-way causal mechanism, or a virtuous circle as she calls it: it is the already engaged citizenry who turns to political news and who consequently becomes even more engaged. Politically passive citizens, by contrast, are not interested in political information in the first place (Norris 2000: 317). But considering the constantly diversifying news market, chances that even these unengaged members of society are reached by information about public affairs increase.

As already mentioned in the previous section, Norris's (2000) study deserves a lot of praise. Nevertheless, its shortcomings, especially with respect to her analyses of media effects just outlined, need to be pointed out. First of all, the independent variables are not systematically connected to the dependent variables. On the one hand, the structural media data is only analyzed descriptively and not combined with civic engagement in a causal analysis. On the other hand, the influence of media coverage is only tested for public confidence but not the other civic engagement measures. Furthermore, her statistical analyses are not beyond any doubt. For example, it is problematic to estimate simple OLS regression models on the basis of a dataset whose units are country-months, as she does in chapter 9.

Finally, a third strand of research addresses the relationship between media penetration and public spending (see Besley and Burgess 2002; Bruns and Himmler 2007; Strömberg 2004). What is interesting about these contributions is that they all look at this process within one country but compare various subnational units. In a similar vein like the corruption studies cited above, this literature argues that in order to avoid sanctions from voters which they anticipate to be well-informed, political incumbents provide more public services for areas where media access is more widespread (Besley and Burgess: 1445f.; Bruns and Himmler 2007: 1; Strömberg 2004: 215). In order to test their assumptions, Besley and Burgess (2002) regress annual amounts of food distribution and calamity relief expenditures by governments on yearly newspaper circulation per capita in 16 Indian states from 1958 to 1992, controlling for election turnout and party competition. Strömberg (2004), another example, deals with the share of households owning a radio in about 2'500 U.S. counties in the 1930s and links this to unemployment relief spending as part of the New Deal programs implemented around the same time. He also takes into account voter turnout (since media access might also indirectly affect public spending via electoral participation) and various socio-demographic variables and tests the robustness of his results by means of an IV approach. Finally, Bruns and Himm-

ler (2007) rely on county-level data from the United States as well. However, they do not measure media penetration but rather a county's distance to "media cities" (Bruns and Himmler: 1), postulating that media tend to cover political affairs that are closer to where they are located. Thus, politicians have fewer incentives to spend money in areas that receive little news coverage. Bruns and Himmler (2007) therefore estimate the effects of a county's closeness to the nearest location of a major TV station and of the number of local TV stations licensed within a county on the amount of federal grants per capita allocated to it for about 3'000 counties. Just like the other two studies, the authors include a range of control variables such as electoral turnout and socio-demographic factors, and they use methods which allow them explore possible omitted variable or endogeneity bias (two-stage least squares). In all these papers, the authors find a positive influence of media penetration – or media density in the case of Bruns and Himmler (2007) – on political output, both directly and indirectly via election turnout.

To conclude, what all of the different studies discussed in this section have in common is that they give interesting insights into their rather limited fields of research. Moreover, their theoretical assumptions are plausible and, with the exception of Norris (2000, 2004) and possibly Van Kempen (2007), they are tested by means of appropriate empirical analysis. However, even the most sophisticated statistical methods do not solve the problem of inadequate data. This is something that especially the cross-national studies presented here suffer from and that also applies to the quantitative media performance studies presented in section 2.2.2. On the one hand, both press freedom indices mentioned (Freedom House and Reporters Without Borders) are not very valid and reliable. Despite being very widely used and offering a metric scale which seems to allow for a nuanced gradual measurement, it is not clear how these scores are really produced. This is because they lump together many different forms and degrees of potential media freedom violations. Lindstedt and Naurin (2005: 12), for example,

point out that the version of the Freedom House press index that Chowdhury (2004) uses actually includes corruption. Moreover, neither the exact coding procedures nor all sub-scores are publicly available, especially in the case of the measure from Reporters Without Borders.

On the other hand, Djankov et al. (2003) and Baek (2009) might be criticized for the opposite. Eight out of Baek's (2009) ten indicators for political communication systems are dummy variables and therefore too simplistic. For instance, simply assessing the degree of a politicized press by a dichotomous indicator seems improper. The fact that Van Kempen's (2007) more nuanced measure produces quite different results lends support to this claim. Similarly, Baek's (2009) mere distinction of private, public and dual broadcast systems is very crude, not to mention that nowadays there is hardly any system that consists of either purely commercially or exclusively publicly funded providers. Thus, a more appropriate measure would capture the degree to which either organizational form prevails, just like Djankov et al. (2003) do. But their study, in turn, might be questioned on grounds of inaccurate classifications too. These probably explain why no significant relationship between TV ownership and democracy is found. While it makes indeed sense that extensive ownership of newspapers only occurs in nondemocratic regimes, state ownership of broadcasters may take many different forms. As the authors note themselves, the British Broadcasting Corporation (BBC) is hardly the same thing as state television in Myanmar (Djankov et al. 2003: 351). Hence, it might be reasonable to distinguish publicly owned broadcasters from those actually run by the government. Yet both fall into the same category in Djankov et al.'s (2003) dataset. They largely fail to acknowledge this problem and instead offer a rather implausible explanation for their results: „One reason might be that the private press, which is more common, provides a check on state television, ensuring freer flows of information than would occur if both were in state hands" (Djankov et al. 2003: 369).

But data problems also arise with regard to some of the dependent variables used in the studies cited above. The difficulty of reliably measuring corruption is well-known and much-

debated. Treisman (2007) notes that especially corruption indices which rely on expert judgments – in contrast to those based on surveys of corruption victims – may suffer from serious biases. Most notably, if experts equate democracy and press freedom with less corruption while coding countries, then analyses of the influence of democracy and press freedom on corruption indices are largely tautological. In addition, Munck (2009: 9) reveals the irony of international organizations' demand for transparency while they themselves provide highly intransparent corruption data.

The criticism of inadequate data is, however, only partly justified. In fact, finding solid data on media and media systems for a large range of countries is not an easy task (Hallin and Mancini 2004: 16; Leckner and Facht 2010: 7; Puddephatt 2010: 43). The lack of proper data can therefore be considered as the most important challenge for comparative media studies. This problem is discussed in more detail in chapter 4.

Besides data problems, a further objection to the cross-national studies presented above is of conceptual nature. Apart from the contributions examining political participation, the literature discussed in this section includes countries covering the full continuum between authoritarian and democratic regimes. Thereby, they ignore that the media might have very different effects for different types of political regimes – as is suggested by Gunther and Mughan (2000). But a joint analysis for such diverse sets of countries blurs these differences, despite the fact that the sizes of such country samples are impressive. Lindstedt and Naurin (2005) account for this by introducing interaction terms into their models. But the impact of the media on democracy could probably be more adequately assessed by focusing on just one type of regime. Baek (2009: 380) recognizes this problem and estimates models for different subsets of countries. Similarly, the present study limits the diversity of regime types since it is confined to the category of established democracies.

2.4 Summary

The purpose of this chapter was to provide an overview of the theoretical concepts and the data used in empirical media studies which have a cross-national design comparing at least ten countries – with two exceptions – and which relate to democratic media performance or the effects of mass media on (attributes of) democracy.

With regard to studies trying to evaluate and compare media performance, qualitative and quantitative approaches were distinguished. As for the former, two seminal typologies of media and political systems were highlighted: Siebert et al.'s (1956) four theories of the press and Hallin and Mancini's (2004) three models of media systems (see section 2.2.1). Studies with a quantitative design were further divided according to their levels of analysis. More specifically, section 2.2.2 discussed one contribution with a focus on the structural or macro level (Voltmer 2000), two on the content or micro level (Aalberg et al. 2010; Woods 2007) and one on both levels (Norris 2000), respectively.

Section 2.3 presented various studies which empirically link and analyze the relationship between media system features and democratic governance as a whole (Djankov et al. 2003), various attributes thereof (Adserà et al. 2003; Norris 2004) or only one specific democratic element such as the absence of corruption (e.g. Chowdhury 2004; Lindstedt and Naurin 2005) or political participation and civic engagement (Baek 2009; Norris 2000; Van Kempen 2007). Furthermore, attempts to predict political output by media penetration and density on the sub-national level (Besley and Burgess 2002; Bruns and Himmler 2007; Strömberg 2004) were outlined.

The significance of all of these contributions for the field of comparative media research needs to be emphasized once again. Nevertheless, the limitations which were identified with respect to all of them throughout the chapter should not be neglected either. To briefly recapitulate, the qualitative media system typologies have not been followed by comprehensive

empirical analysis and their assumptions therefore remain largely untested. The quantitative assessments of media performance, by contrast, might be criticized on the grounds that they are either conceptually limited to one level of analysis or do not apply a systematic empirical framework. Similarly, the research associating media with democracy usually focuses on a very narrow question, i.e., one specific element of democracy only, and does not differentiate between types of political regimes. Finally, all of the studies illustrated in the last two sections suffer to various extents from problems with their data and/or methodology. In short, they do not provide a systematic test of the media's contribution to the quality of democracy.

The aim of the present study is to offer an analysis of media performance and its contribution to democracy which avoids at least some of these shortcomings. First, various indicators are deduced from a sound theoretical model to measure democratic media performance on both the structural and the content level. Second, attempts are made to compile data as reliable as possible, for as many democracies as available and across almost two decades. Finally, the effects of media performance on four different aspects of democracy are tested with adequate statistical methods.

After this review of empirical media studies the next chapter will turn to the normative literature about media and democracy. The goal of chapter 3 is to determine what functions media have to fulfill for a well-functioning democracy according to democracy theory, in order to develop a conceptual model which will guide the practical analyses.

PART I:

ASSESSING DEMOCRATIC MEDIA PERFOR-MANCE

Chapter 3:
The functions of the media for democracy

Normative standards or roles that define how institutions which hold a specific function in society should operate serve well as benchmarks to evaluate their actual performance (McQuail 1992: 17; Norris and Odugbemi 2010: 12). Hence, this chapter aims to clarify the normative standards of democratic media performance. To carry out a systematic analysis of mass media's contribution to democracy, it is first of all necessary to identify the functions that media are supposed to fulfill in a democracy. This further requires specifying how the media's compliance with such functions manifests itself in reality, i.e., how their democratic performance can be empirically observed.

The chapter therefore proceeds as follows. In a first step, the normative literature regarding the role of media in a democracy is reviewed by looking at democracy theory as well as the varying number and configurations of democratic media functions that have been suggested by media scholars. Next, I synthesize these different notions and develop my own theoretical concept. It suggests that – normatively speaking – media have two functions in a democracy: a vertical and a horizontal function. While the vertical function is concerned with the dissemination of information about politics and politicians to as many citizens as possible, the horizontal function holds that media need to provide a public forum which reflects the diversity of interests within the society. Finally, both of these functions are discussed in more detail and their basic empirical features in terms of media system structures and media content are derived. These features serve as the variables for the empirical media assessment.

3.1 The role of the media in contemporary democracy according to normative theories

Throughout its existence – from the ancient Greek philosophers to political thought of the 21st century – democracy theory has produced a large variety of different traditions or conceptions

of democracy (see Held 2006; Schmidt 2010). In modern times, these range from the rather minimalist theories like the elitist (Weber 1976 [1922]; Schumpeter 1950) or the economic models (Downs 1957) to the pluralist (Fraenkel 1991 [1964]; Dahl 1956) and participatory tradition (Barber 1984; Pateman 1970) as well as even more ambitious conceptions such as for example the deliberative (Fishkin 1991; Habermas 1962, 1981, 1992), social (Heller 1971; Meyer 2005) or cosmopolitan models (Archibugi and Held 1995; Held 1995). Except for maybe the deliberative theory, none of these models seem to have much to say about the role of the media beyond the call for a free and independent press, at least not explicitly (Schudson 2008: 11; Trappel and Maniglio 2011: 81). Nevertheless, deducing assumptions about democratic media functions from these models' properties is quite straightforward, as many contributions have shown (e.g. Beierwaltes 2000; Ferree et al. 2002; Strömbäck 2005; Trappel and Maniglio 2011). Or conversely, it is possible to align the media functions that media scholars such as Christians et al. (2009), Graber (2003), Norris (2000, 2004), Norris and Odugbemi (2010) or Schudson (2008) put forward with specific normative democratic traditions.

Beierwaltes (2000), for example, examines the role of communication – which in today's media societies can be regarded as media functions – in representative democracies according to three strands of democracy theory: the elitist or liberal, the participatory and the pluralist tradition. The liberal and the participatory theory can be considered ideal type models of democracy (see e.g. Kriesi 2005, chapter 1; Williams and Edy 1999) because they represent two easily distinguishable and contrastable positions under which the models mentioned above may be subsumed. Broadly speaking, the elitist and economic models are supposed to constitute the liberal theory, whereas the deliberative model might be seen as a variant of the participatory theory. Beierwaltes (2000: 61) argues that the demands made on the media do not fundamentally differ across the three normative models of democracy, but rather their relative importance does.

Hence, the first task of the media for democracy is to establish publicity (Beierwaltes 2000; "Publizität" in the original German version). This refers to the duty of elected representatives to be answerable to the people and to comment on and give reasons for the results of their political decision making. Publicity therefore guarantees the transparency of the political systems and enables citizens to make electoral choices, by informing them about political incumbents and their challengers (Ferree et al. 2002: 206; Froehlich 2001: 31). For Beierwaltes (2000), Ferree et al. (2002), Norris (2000) as well as Strömbäck (2005), this aspect is strongly stressed by the classical liberal model of democracy.[12] This theory focuses on a strong political elite who acts as representatives of the people and takes all political decisions (Ferree et al. 2002: 206). Citizens are only assigned a minimal role because it is assumed that public affairs are too complex and too boring for them in most cases (Lippman 1922; Schumpeter 1950). As a consequence, their duty is basically restricted to choosing their representatives by means of regular, free, fair and competitive elections (Schumpeter 1950). Elections give the people the possibility to hold the elite accountable, by punishing and replacing those who have not acted in the public interest. This requires that the citizens can correctly attribute responsibilities. For Lippman (1922), media should thus provide all citizens with full and fair information about what they need to know and would not learn otherwise. This notion that media need to enable individuals to make sound political choices, i.e., to *retrospectively* judge the performance of the representatives and to *prospectively* decide which candidates match their preferences best, resonates in many contributions about media and democracy (Christians et al. 2009: 30; Ferree et al. 2002: 207; Norris 2000: 29f.; Norris and Odugbemi 2010: 11; Strömbäck 2005: 339). Without linking his six democratic functions of the media to a specific model of democracy, Schudson (2008: 12f.) even explicitly calls one of them "information" (Schudson 2008: 12f.).

[12] Strömbäck (2005) actually refers to the "competitive model of democracy", which in essence reflects the same ideas as the liberal model described here.

Moreover, this idea of 'information' is closely related to a further concept often discussed with regard to media and democracy. Media, by informing the public about political affairs, simultaneously impose control on the elected representatives (Champlin and Knoedler 2008: 138). Accordingly, further claims by Norris (2000), Norris and Odugbemi (2010), Schudson (2008) and Trappel and Maniglio (2011) hold that media need to act as guardians of the public interest. They constantly have to scrutinize the political office-holders and make their activities and performance records as well as misconduct and mismanagement publicly visible. This is of course especially important for citizens' retrospective judgments of political incumbents (Strömbäck 2005: 339). While Christians et al. (2009: 30) refer to the media's "monitorial" role as "vigilant informers" in this respect, Schudson (2008: 14) speaks of "investigation" by which the media are supposed to „make the powerful tremble". Similarly, Graber (2003: 143) posits that media have to „serve as citizens' eyes and ears to survey the political scene and the performance of politicians" and „act as a public watchdog that barks loudly when it encounters misbehavior, corruption, and abuses of power in the halls of government". This dog metaphor is very often used to describe the media as vigilant observers. Hence, media are supposed to act as "watchdogs" or "guard dogs" (looking after vested interests) instead of tame "lapdogs" which serve politicians as if they were their masters (Christians et al. 2009: 30). However, neither should media turn into "attack dogs" by being too cynical and negative about politics in general (Kriesi et al. 2012: 209). In addition to watchdogs, media have also been equated to a fourth power or a fourth estate. However, as Sparks (1995) points out, these terms are not necessarily synonymous but could instead be adequate for certain types of media only. So while the reference to the fourth power might best apply to public broadcasting, the watchdog role would rather be performed by marginal or small elite media (Sparks 1995: 53).

A third media function that Schudson (2008) identifies is "analysis". Media should not only passively observe and pass on information but also put them in understandable narratives and

thereby actively explain complex matters to the public (Schudson 2008: 16f.). In my view, this third function also fits into Beierwaltes (2000) broad concept of 'publicity' since it is more an extension or qualifications of the previous two roles rather than a fundamentally different idea. Accordingly, providing analysis and interpretation belongs to media's information and watchdog function (Norris 2000: 29).

In sum, the liberal model of democracy mainly requires the media to distribute critical information about public affairs in order to empower citizens to participate in elections and hold those who govern them accountable.

Following Beierwaltes (2000), the second requirement that media should fulfill for democracy is discursiveness (originally "Diskursivität"). This means that the media are responsible for allowing a free public exchange of arguments among the citizens in order to find commonly accepted compromises. For the liberal model of democracy, this is mainly important during election campaigns because voters need information about all political competitors (Ferree et al. 2002: 207; Strömbäck 2005: 339). By contrast, the notion of a public forum, where all political interests and alternatives have an equal chance to be heard not only during but also in between elections, is especially valued in the participatory model of democracy (Ferree et al. 2002: 211f.).[13] The main concern of this model is the maximization of the direct involvement of as many citizens as possible and the equal consideration of their interests in the political decision-making process (Barber 1984). Proponents of this theory assume that political participation fosters the cohesion of a society and equips citizens with political competences. But realistically, it is not possible that every single citizen is always able to participate directly in large democracies. Therefore, based on Ralph W. Emerson's theory of political representation, Von Rautenfeld (2005) argues that all communities should have delegates to represent

[13] Ferree et al. (2002) actually discuss two further models of democracy beside the liberal and participatory, namely the discursive and the constructionist theory. However, with regard to the points mentioned here, these are in line with the participatory model.

them, not only in the political but also in the public sphere, so that civic engagement is not limited to elections. The more voices exist in the public sphere, the better. Because there is no such a thing as an absolute truth „democracy is the more valuable, the more 'stupidities' are given public expression through representation" (Von Rautenfeld 2005: 193). Moreover, the more diverse and proportional public representation is, the more it equals direct participation by the people. Such a focus on public discourse is especially prominent in the deliberative model of democracy, which – as mentioned above – might be regarded as a subtype of the participatory theory of democracy. In line with Von Rautenfeld (2005), this approach emphasizes the need for a free public sphere as a space between households and state institutions which everyone should have unhindered access to in order to express his or her opinions and engage in debates with others (Ferree et al. 2002: 215f.; Habermas 1962, 1981; Norris and Odugbemi 2010: 6). This is also reflected in general definitions of the public sphere, which has famously been described as „a group of people (a) who are confronted by an issue, (b) who are divided in their ideas as to how to meet the issue, and (c) who engage in discussion over the issue" (Blumer 1946: 189).

The means of communication by which the public sphere is constituted are essential. The public sphere has its roots in the *agora* of the Greek city states, a space where citizens actually came together to „trade goods, information, concepts and ideas" (Norris and Odugbemi 2010: 6). In modern, large-scale democracies, however, mass media are assumed to play the role of the agora. Hence, in order for Von Rautenfeld's (2005) system of public representation to work, media need to guarantee a diverse platform where the variety of social and political interests, viewpoints and issues can be articulated and where public opinion can emerge, not only during but also in between elections. Again, this idea is expressed in most contributions of media's normative place in society even though not all of them specifically refer to participatory theories of democracy (see e.g. Ferree et al. 2002: 210; Graber 2003: 143; Norris 2000: 25, 2003: 138; Norris and Odugbemi 2010: 18; Schudson 2008: 20; Strömbäck 2005: 340;

Trappel and Maniglio 2011: 86). Christians et al. (2009), for example, do not explicitly speak of the media as a public forum but outline journalism's "facilitative" and "radical" role, both of which seem to point in the same direction. While according to the former, media should support and strengthen the civil society, the latter means that media need to „provide a platform for views and voices that are critical of authority" (Christians et al. 2009: 31). Furthermore, Schudson (2008: 17f.) points out that media should foster "social empathy" and mutual respect by presenting different perspectives and 'lifeworlds', especially of minorities and disadvantaged groups who are often marginalized in the public sphere. But again, rather than being two separate aspects "social empathy" and "public forum" (which constitute the fourth and fifth media function in Schudson's (2008) essay) are two sides of the same coin in that the former should thrive given the latter, in my opinion.

In addition to facilitating public discourse, an inclusive media platform is also considered to contribute to the mobilization of citizens. Interest groups do not only seek public attention to have a voice and debate with other actors. They also want to rally and gain supporters. Norris's (2000) third and Schudson's (2008) sixth and last media function is therefore "mobilization". On the one hand, Norris's (2000) understanding of mobilization includes the provision of necessary information for participation in elections by the media, something which has been discussed above with respect to the liberal model of democracy though. On the other hand, and in line with Schudson (2008), she conceives of mobilization as stimulating grassroots interest and discussion among citizens as a result of a lively public discourse (Norris 2000: 30). In this sense, it might be questioned whether 'mobilization' really is a media function in its own right or just a possible consequence of media establishing a diverse public forum. Regardless, mobilization is also prominently promoted by Dewey (1927), who is typically pitched against Lippman (1922) and a liberal perspective. Dewey stresses that the role of the media is to educate and engage the people. This brings us back to the participatory model of democracy and its focus on self-education through participation.

In short, the mandates of the media that are especially important with regard to the participatory theory of democracy are to „provide a forum for discussion of diverse, often conflicting ideas" and „give voice to public opinion" (Graber 2003: 143), ultimately to promote civic engagement.

Beside publicity and discursiveness, the third function of democratic communication according to Beierwaltes (2000) is responsiveness (originally "Responsivität"). Responsiveness requires that political representatives are sensitive to their constituents' preferences and needs. This establishes a linkage between those who govern and those who are governed. Beierwaltes (2000) mainly assigns this third function to the pluralist theory of democracy. This model focuses on a strong intermediary system operating between the society and the state in which all kinds of organized interest groups compete for public attention and articulate their demands to be considered by political representatives (Beierwaltes 2000: 130; Dahl 1956). Hence, it is not difficult to see why responsiveness would be crucial for the pluralist theory. By contrast, rather hard to imagine is the media's active role in this respect. It seems that, unlike the other two of Beierwaltes's (2000) functions, responsiveness is not something media are actually able to enforce through their own activities. I would think instead that responsiveness might be a potential consequence of mass media's fulfillment of publicity and especially discursiveness. Responsiveness „is what occurs when the democratic process induces the government to form and implement policies that the citizens want" (Powell 2004a: 91). Thus, it is something that possibly results from watchdog media who denounce politicians' neglect of public opinion. And more importantly, it might emerge from an open and plural discourse which allows office-holders to learn about public opinion in the first place.

In other words, I suggest that media can only establish the prerequisite for the responsive behavior of political elites, specifically by complying with the functions already discussed

above. This implies that the tasks of the media with respect to the liberal and the participatory models of democracy should also apply to the pluralist theory.

The discussion of the normative roles of the media as identified by various scholars and according to different theoretical conceptualizations of representative democracy has revealed two main bundles of democratic media functions. One is more in line with the liberal model of democracy and requires the media to act as vigilant informers. The other rather applies to the participatory model of democracy and refers to the media as a public forum. Against this background, I will subsequently develop my theoretical framework which highlights these two functions that media are supposed to fulfill in modern democracies.

3.2 Two normative functions of the media for democracy and two levels of analysis

Following up on the previous discussion of the requirements that media have to fulfill in a democracy, and in order to integrate the different views and concepts in a few words, I argue that there are basically two ways in which media can contribute to democracy. First, media have to guarantee the vertical communication from the policy-making arenas to the citizens. Second, media should facilitate the horizontal communication among citizens, intermediary actors and political representatives. I will therefore distinguish between the vertical and the horizontal media function for democracy hereafter.

Sketched in broad strokes, the aim of the *vertical media function* is to disseminate politically relevant information to as many citizens as possible in order to allow them to make sound election choices and judge political incumbents. This corresponds to the first set of requirements discussed in section 3.1 above. The aim of the *horizontal media function*, by contrast, is to reflect the diversity of interests within the society and enable public debate among them. This was the main focus of the second set of requirements in the preceding discussion of section 3.1. However, it is important to note that the distinction between the vertical and the hor-

izontal function primarily serves analytical purposes. In reality, it is not always easy to keep the two functions apart and overlaps between them might well exist. For example, the public competition among political parties in election campaigns could be regarded as both a public debate among diverse members of the civil society in the sense of the horizontal function or the distribution of necessary information about political institutions and processes as stipulated by the vertical function. Hence, it will be subject to analysis whether the two dimensions also manifest themselves empirically as distinct dimensions of media performance.

So how can the media meet the democratic demands imposed on them by the two media functions and how can this be measured? Providing answers to this question is the subject of the following sections in which the two functions and their characteristics are further specified. As a general starting point for this endeavor, it is worthwhile to draw on McQuail (1992) and Voltmer (2000: 5) and again distinguish between the two different levels of analysis which have already been introduced with regard to the discussion of previous comparative media studies in chapter 2. Accordingly, both structural features of media systems and content features of media coverage are crucial for democracy.[14] This means that on the micro level, as the term was used in the previous chapter, every media outlet is responsible for designing its news coverage or content in such a way as to account for the two normative functions. Additionally, on the macro level, media outlets act within specific media systems or structures, which can be more or less apt to satisfy the normative standards demanded from the media. This distinction between structure and content provides a helpful analytical tool to derive variables for the assessment of media performance. However, previous studies have rarely examined both levels (see chapter 2).

[14] Voltmer actually uses the terms "structural and performance diversity" because she conceives of diversity as the single key element of the media's contribution to democracy (Voltmer 2000: 5). Similarly, Trappel and Maniglio (2011) differentiate between "structural conditions" and "performance criteria". While the former refer to characteristics on the country level, the latter focus on the company level. These two concepts are combined with their three democratic media functions "freedom / information", "equality / interest mediation" and "control / watchdog" (Trappel and Maniglio 2011: 91).

With the two democratic functions of the media and the two levels of analysis in mind, the crucial factors to evaluate how well media fulfill their democratic duties can be deduced from the relevant literature. Starting with the vertical function (section 3.3) and then moving on to the horizontal function (section 3.4), I am subsequently going to describe the functions and their components in more detail and propose how they can be measured.

3.3 The vertical media function

In order to understand the vertical function of the media for democracy better, it is helpful to embed it into a broader context. In this sense, the vertical function can be regarded as related to the fundamental principle of freedom of the press. In other words, a good media performance in terms of the vertical function could be considered as resulting from and reflecting the ideal of a free and independent press. This is because according to the vertical function, media should provide all citizens with easy access to the information they need to make meaningful choices in elections and maybe direct votes (Norris 2000: 29f.). Furthermore, to borrow from Kriesi et al. (2007) and Powell's (2004a) concept of the "chain of responsiveness", it could be argued that the vertical function's purpose is to enable accountability. Other scholars similarly claim that publicity is an essential prerequisite for accountability, which can be defined as the mechanism of sanctions being imposed for misconduct (see e.g. Adserà et al. 2003; Lindstedt and Naurin 2005). Thus, accountability not only presupposes transparency in terms of available information but also that „the information is actually spread to and taken in by a broader audience" (Lindstedt and Naurin 2005: 8). This is in line with studies that have shown in different contexts that the distribution of media (such as newspaper circulation) is related to public spending (see section 2.3 in chapter 2). They reason that out of fear of being held accountable and voted out of office, politicians will direct more resources to areas where they expect to find a larger share of informed citizens (Besley and Burgess 2002; Strömberg 2004).

Hence, the vertical function requires that mass media should be available to as many citizens as possible. No segments of the society should be systematically excluded from participating in elections and other forms of political involvement because they do not have the possibility to catch up on the performance of their representatives, political alternatives or the issues at stake (Dahl 1998: 37). In general, the information that media distribute should help individuals to learn about politics and public affairs. By supplying citizens with political information, media also control the activities of the political elites and „expose official corruption, corporate scandals, and government failures" (Norris 2000: 28f.). Accordingly, media have often been referred to as a watchdog, a fourth power or a fourth estate (Sparks 1995). For all these reasons, *disseminating information*, especially critical information, is the central concept or objective of the vertical media function.

However, as already noted, how much and what citizens really need to know in order to participate properly is highly debated (see chapter 1). In any case, it is neither possible for the media to cover all the news that exists, nor for individual media consumers to absorb all the news that is actually being covered (Graber 2004: 552). It is therefore not reasonable to define too rigid benchmarks already from a theoretical point of view. In addition, given the partially poor availability of data, limiting the assessment to rather broad standards will considerably facilitate the comparative analysis of media's democratic performance. Designing such standards is the aim of the subsequent section.

3.3.1 Conceptualizing the vertical media function

Table 3.1 shows a conceptualization of the vertical media function. It illustrates how for both levels of analysis – structure and content – the function is broken down into components and variables which will guide the empirical analyses. Of course, this list is not necessarily exhaustive. However, based on the literature, the aspects to be highlighted shortly seem the most pivotal ones.

On the structural level, all variables are derived from a single component whereas the vertical function is divided into two components on the content level. They are now discussed in more detail, beginning with the structural level and then proceeding to the content level.

Table 3.1 *Conceptualization of the vertical media function*

	Components	**Variables**
Structural level	Access to information	• High overall levels of media penetration in terms of print, electronic and new media • Even geographical distribution of media access • Low prices for media services
Content level	A. Amount of critical political information	• High amount of politically relevant news • High amount of news about malpractice of office-holders
	B. Balance of political information	• Well-balanced coverage of constitutional branches

Structural level

With regard to the structural level one of the most important requirements of the vertical function is that media need to guarantee the equal and easy access for the whole electorate to necessary information. Media systems should therefore be structured in such a way as to account for an extensive and even distribution of information across the population (McQuail 1992: 175). This can first of all be enhanced by *generally high media penetration rates*, ideally for different types of mass media. This might be assessed by factors such as newspaper circulation per capita, the number of TV and radio sets per household or the number of internet users (see e.g. Adserà et al. 2003; Norris 2004).

In addition, there should not only be a high overall access to information. Media should also be available everywhere in a country. In other words, there should be an *even geographical distribution of media access* and no local or even regional disruptions of supply. For this reason, media penetration should also be studied and compared for different subnational units.

Similarly, political information should be equally accessible for different socio-economic groups within the society. In this sense, a citizen's income should not determine whether he or

she can receive mass media. Hence, *low prices for media services* are important. In other words, as many people as possible should be able to afford to buy or subscribe to mass media (McQuail 1992: 175). This pertains to both press and broadcast products as well as internet services.

On the structural level, the vertical function is thus mainly concerned with guaranteeing a good media infrastructure which allows for a broad diffusion of information. This, however, leaves aside whether relevant information is transported at all. It is therefore crucial for the vertical function to also consider media content.

Content level

In terms of the content level of the vertical function, media need to actually provide citizens with information about political processes, decisions and institutions. This has two somewhat different implications, which is reflected by the two components on the content level in table 3.1. The first component requires that media cover and scrutinize political office-holders as often as possible, regardless of which ones. The second asks for a well-balanced coverage of the different constitutional branches. This is mainly inspired by worries that media, due to their news value orientation, focus more and more on executive actors at the expense of other political institutions (Graber 1997; Van Dalen 2012). In some sense, therefore, one could distinguish the two components as capturing the amount and balance of political information.

A. The amount of critical political information

As its name suggests, the first component primarily commits media to deliver a *high amount of politically relevant news*. Bearing in mind that the vertical function mainly derives from the liberal model of democracy and therefore focuses on citizens' capacity to hold officials accountable, politically relevant news might here be defined as reports about the actions of the parliament and the executive as well as of the judiciary and even the public administration. Hence, news coverage of these institutions and their representatives within a country should

be extensive according to the vertical function. More specifically, it can be argued that coverage of national politics is supposed to dominate over other news categories, such as for example the economy, sports or human interest. Similarly, national incumbents should appear more frequently in the news than their counterparts from other countries. Despite growing supranational integration, national institutions remain the legitimate and most important powers of policy making in established democracies.

In addition to the simple amount of political news coverage, a further variable with respect to the first component is the frequency of critical reports about political affairs. This relates to the idea of media acting as public watchdogs that constantly monitor power holders and expose misconduct and mismanagement, which is inherent to the vertical media function. This might be guaranteed by a *high amount of news reports about official malpractice*, such as of scandals, corruption or fraud cases and similar misdeeds. A high number of such lapses associated with state actors and institutions would indicate that the media perform their role well and that citizens can better evaluate the performance of those in power.

At least in the case of scandals, however, this is of course controversial. After all, mass media have been widely blamed for eroding public confidence in democratic institutions, precisely as a consequence of too much scandalizing (Cappella and Jamieson 1997; see Norris 2000: 6f.). But watchdog journalism is essentially exposure journalism, in which „the ethical standards of the journalist or the quality of reporting may be high or low" (Coronel 2010: 113). So even if one agrees that mass media tend to overplay their duty and behave more like attack dogs than watchdogs, political scandals have no doubt often enough proven to be important mechanisms to improve the transparency of the political system and to reduce corruption. The Watergate case is just the most prominent example (see Curran 2011). Similarly, referring to the Lewinsky scandal, Strömbäck (2005: 342) holds that at least from the perspective of the liberal model of democracy „news journalism in this case did exactly what it is supposed to do: it acted as a Burglar Alarm and exposed wrong-doings". Drawing on Zaller's (2003) idea

of a "Burglar Alarm news standard", this also points to the fact that political scandals usually attract broad public attention and may thus lead to enhanced and especially more equal knowledge about politics (see also Kriesi et al. 2012: 240). This should especially apply to those political institutions which can and should be directly held accountable by the citizens. Although it is certainly also desirable that media expose official misconduct within the judiciary and the public administration, it is more crucial for voters to know how their incumbent governments and parliaments behaved, in order to make meaningful election choices. In this sense, critical or negative media coverage, especially about the executive and the legislative branches, is fully in line with the vertical function, even if it takes the form of "confrontainment" (Kriesi et al. 2012: 212).

A further – but possibly related – objection to the idea of regarding disclosing and accusatory media coverage as a sign of good vertical function media performance on the content level, is that it does not account for the fact that media might not report about official misconduct because none actually takes place. In terms of democratic quality such a situation should be preferable to one where strong watchdog media have to cover extensive malpractice going on in the halls of government. While this is a solid point, the second variable for the amount of information in table 3.1 might be defended on the grounds that a critical and vigilant stance of the media towards those in power is generally desirable. In other words, much like a healthy democracy requires critical citizens who do not blindly trust their leaders (Norris 1999, 2012), mass media should always maintain a skeptical tenor towards political incumbents. This is of course not to say that media should receive praise for (falsely) accusing everything and everyone. To the contrary, this might actually backfire and damage their own credibility (Kriesi et al. 2012: 237). But media should not hesitate to ask uncomfortable questions and raise suspicions if they sense that something is going wrong, provided that they clarify their mistakes if these suspicions do not turn out to be true. The dividing line between watchdog and plain sensationalist journalism is obviously thin here. However, this study prefers to err on the side

of optimism – if you will – in arguing that no critical media coverage equals a lack of vertical function media performance.

B. The balance of political information

The second component of the vertical function makes assumptions about the ratio of news coverage about political institutions. More specifically, it requires a *good balance of constitutional actors in the news*, and especially between the parliament and the executive. As already mentioned, the government and the parliament are the two powers which are legitimized by democratic elections. They are therefore most important from the perspective of voters. Moreover, the shift of media attention from other political institutions to the executive is most often deplored with regard to the legislative (Van Dalen 2012). This raises the question of what constitutes a 'good' balance. Given that the relative importance or power of parliaments and governments varies across different political systems (Lijphart 1999), one could argue that a well-balanced media coverage of these two branches depends on the specific context. While this thought surely has some merit, it would probably be difficult to determine the exact ratio in every case. Thus, to adopt a more pragmatic approach, it might be reasonable to simply assume that the legislative and executive powers should receive equal amounts of media attention.

3.4 The horizontal media function

According to the horizontal function, media contribute to a vibrant democracy if they provide a public forum where all groups within the society can freely articulate and exchange their interests and where public opinion is formed. So while the vertical function was linked to the freedom of the press, the horizontal function might be associated with the fundamental principle of freedom of expression. In other words, if mass media fulfill the horizontal function well this could be considered an indication of an effective guarantee of the free articulation of opinions. Moreover, it could be asserted that the horizontal media function's main purpose is

to promote responsiveness, which is one of the two mechanisms at work in representative democracies according to Kriesi et al. (2007). This connection between the horizontal function and responsiveness has already been elaborated above (see section 3.1). While Beierwaltes (2000) considers responsiveness and discursiveness to be separate dimensions of democratic communication, I argue that responsiveness would rather be a consequence of a pluralistic and diverse public discourse. This has two reasons. On the one hand, if media give all competitors a voice in election and – if existing – direct democratic campaigns they enhance the public visibility of political alternatives and opposing viewpoints. This, in turn, is supposed to lead to "enlightened understanding" (Dahl 1998: 37), i.e., increase the chances of citizens to form coherent preferences and select the best matching political options accordingly. In the end, this should lead to a better representation of the will of the people (Norris 2000: 26; Voltmer 2000: 4). On the other hand, a culturally and socially diverse public sphere that reflects a country's cultural and societal diversity allows political representatives to learn about public opinion and their constituents' demands (Norris 2000: 26). This idea is aptly captured in McQuail's (1992: 144f.) definition of media diversity as reflecting differences in society, giving access to various points of view and offering a wide range of choice. Hence, the main concern of the horizontal media function is to *guarantee diversity*.[15]

In the following section, the horizontal function will be specified and characterized in more detail. The aim is to derive standards which will allow for an evaluation of how well media comply with the horizontal function's key concept of diversity. Like in the case of the vertical media function, however, the specific requirements should be designed in such a way as to permit comparative media assessments in the face of limited data availability.

[15] Instead of diversity, the notion of an open public sphere is sometimes also discussed in terms of "pluralism" or "impartiality" (Gunther and Mughan 2000; Woods 2007) or referred to as a marketplace of ideas (Napoli 1999).

3.4.1 Conceptualizing the horizontal media function

Table 3.2 gives an overview of the suggested conceptualization of the horizontal media function. As with the vertical media function, it is dissected into components and variables for both levels of analysis. This will provide the framework for the operationalization of the horizontal function in chapter 4. Again, it needs to be emphasized that this list represents the result of the author's theoretical reasoning and literature review and that it is certainly possible to deduce other models.

Table 3.2 *Conceptualization of the horizontal media function*

	Components	**Variables**
Structural level	A. Quantitative diversity	• High number of different media outlets in both the print and electronic sector • Plurality of media channels on the regional and local level • Existence and number of minority media / media in different languages
	B. Qualitative diversity	• Internal diversity of opinions: high share of politically neutral media outlets • External diversity of opinions: ideological balance of politically aligned media outlets
Content level	Platform for diverse interests	• Well-balanced coverage of political organizations • Dialogic structure of news reports • Opportunities for direct voice of political actors and citizens

Contrary to the vertical function, the structural level is subdivided into two components in the case of the horizontal function while the content level is only composed of variables from one component. The components and variables are listed and discussed separately for each level of analysis.

Structural level

Structurally, the horizontal function requires media systems to be organized in a manner that all political actors who want to publicly articulate their preferences are actually able to find a platform which gives them a voice. Following McQuail (1992), this is, on the one hand, enhanced by the existence of a large amount of different channels of communication, or what

Voltmer (2000) calls "quantitative diversity". Quantitative diversity therefore represents the first component of the horizontal function on the structural level. On the other hand, not only the simple number but also the types of communication channels are important. Media systems should be open to provide a forum for everyone without a priori excluding or disadvantaging certain groups. This is more likely if media actors already represent the diversity of opinions and ideologies collectively, either by endorsing different political orientations or by strict impartiality (McQuail 1992). In contrast to 'quantitative diversity', this second component can be termed 'qualitative diversity'.

A. Quantitative diversity

With respect to the first component, „diversity is assumed to be the higher, the more sources of information are available in the media system" (Voltmer 2000: 9). Thus, the horizontal function can be better guaranteed if there is a *high number of different media outlets* that provide multiple venues for public debate and for political and social actors to gain public attention (Norris 2000: 26). A multitude of communication channels should exist in the print as well as the electronic media sector. In her study of quantitative media diversity, Voltmer (2000) therefore considers a range of factors, such as the number of daily newspapers titles per capita or the number of television and radio stations. She also looks at different types of broadcasters, i.e., the existence of a dual broadcasting system with both public and commercial or private channels. Similarly, this study will focus on the press and broadcast media. So contrary to the vertical function, new media will not be considered with respect to the horizontal function. This has conceptual and pragmatic reasons. Unlike traditional mass media, the Internet has neither clear institutional nor constitutional bases. Therefore, the structural features of the cross-border and vast communication networks of the Internet are hard to grasp. For example, it is difficult to imagine how to count the supply of politically relevant websites, not to mention for different countries. I am not aware of any study that has made such an attempt. Furthermore, it is still unclear really how influential the Internet is for demo-

cratic processes. It obviously provides great opportunities for political organizations to mobilize supporters, especially considering the growing impact of social media and other transnational platforms. However, it is still rather a tool for entertainment or business purposes than political ones and (Aalberg et al. 2010: 257; Curran 2011: 77; Zillien and Hargittai 2009: 284). In addition, there is evidence that traditional print and broadcast media are still more important sources of information for most citizens (Gibson and McAllister 2011: 233). Finally, even more importantly, people looking for political information on the Internet mostly resort to the online editions of mainstream media companies (Curran 2011: 115; Curtis 2004: 415; Gibson et al. 2005: 571; Gibson and McAllister 2011: 234). Accordingly, most alternative and citizen news websites do not attract large audiences (Curran 2011: 118; Graber 2003: 153).

Quantitative diversity is not only crucial at the overall national level. A *plurality of media outlets at the regional and local level* is of equal significance, both in terms of broadcasters and print media (McQuail 1992: 151, 161). While local television news still have many viewers, growing commercial pressures have markedly reduced the supply of print media on the subnational levels (Curran 2011: 56, 111f.). This trend is especially notable in the United States, which once had a lively local press but where there is now hardly any city with more than one daily newspaper (Curran 2011: 49). But similar developments are also observed elsewhere, such as in Switzerland, for example, which traditionally had a strong local and regional press as well (Hallin and Mancini 2004: 25; Kradolfer 2007).

Finally, media systems should also cater to the needs of linguistic and other cultural and social minorities. Minorities and the organizations that represent them are often marginalized in the mainstream public sphere due to economic reasons (McQuail 1992: 152, 175; Schudson 2008: 53f.). Thus, the *existence of minority media as well as a high number thereof*, such as media outlets in different languages, helps disadvantaged groups to make themselves heard and to reach out to their communities.

B. Qualitative diversity

Another form of structural media diversity, which I have termed ‘qualitative diversity’, refers to the plurality of opinions within the media system. This second component of the horizontal media function does not necessarily correspond to the immediate coverage of different viewpoints but rather the ideological orientation or policy of editorial offices (Voltmer 2000: 10). The larger the range of ideological positions represented within a media system, the more likely it is that all social and political views and demands are represented in the public sphere (Hellman 2001: 184). There are two distinct ways to reach a high diversity of opinions within media systems, one focusing on *internal* features of media outlets and the other on *external* or overall characteristics of the media system (Hallin and Mancini 2004: 29f.; McQuail 1992: 145f.; Norris 2000: 28; Voltmer 2000: 10f., 2010: 144). First, internal opinion diversity or pluralism requires that a media system exhibits a *high share of politically neutral or independent media outlets* which are committed to incorporating the full range of different political opinions into their news coverage. Such independent media are characterized by the fact that „they either support various standpoints or are generally reluctant to express own preferences” (Voltmer 2000: 11). Internal diversity thus preserves pluralism, even with a restricted choice of newspapers within a particular media market (Norris 2000: 27). Second, external opinion diversity means that there is an *ideological balance of politically aligned media organizations* on the aggregate system level. In other words, external opinion diversity „permits individual media to be systematically imbalanced” as long as „diversity emerges from the interaction of these actors on the aggregate level of the entire media system” (Voltmer 2000: 10). Some scholars clearly condemn external opinion diversity as a threat to the quality of democracy and prefer internal opinion diversity because it allows individuals to receive a balanced supply of viewpoints by using just one channel of information (Gunther and Mughan 2000: 423). Voltmer (2010: 144) further points out that partisan media may endanger the social cohesion in countries with sharp social, cultural or political cleavages. Other authors,

however, acknowledge that biased media organizations in a system of external opinion diversity might provide citizens with helpful guidance for opinion formation and decision making and also better mobilize them (Curran 2011: 79; Norris 2000: 28; Norris and Odugbemi 2010: 13; Schudson 2008: 21; Voltmer 2000: 11, 45, 2010: 144). According to Schudson (2008: 21), „partisan journalism enlists the heart as well as the mind of the audience" and „gives readers and viewers not only information but a cause". Moreover, Curran (2011) argues that the democratic role of the media has too often been conceptualized from the perspective of individual voters who require objective and factual journalism. But since democracy is also about intermediate organizations which need to be supported by media systems, „media which are the mouthpieces of collective organisations and solidary groups should be viewed as having as much legitimacy as impartial media informing individual citizens" (Curran 2011: 79). Because of this debate about which form of diversity of opinions is preferable, it seems appropriate to consider both as relevant for the horizontal media function. Again, I will focus on traditional mass media and not new media here for the reasons already stated above.

Another factor that is often deemed important for media diversity are media ownership structures. As already noted in chapter 1, it has been argued by many scholars that the concentration of media outlets within the same corporate entity might impair both opinion diversity and quantitative diversity (see e.g. Baker 2007; Street 2011: 164f.). However, this view is contested as well, and research findings are inconclusive (McQuail 1992: 116). Other studies maintain that ownership concentration is not necessarily related to a decreasing diversity of opinions in the public sphere. They point out that it is actually unreasonable for media owners to harmonize the content of their news products since this would have them compete against each other for the same audience (Graber 2003: 144; Gunther and Mughan 2000: 422; Woods 2007: 216). In addition, large media companies have more resources to invest in high-quality journalism (Dragomir 2010: 270; McQuail 1992: 116). Because both positions are plausible, and because I would not feel confident to prefer one over the other, I will exclude the question

of media ownership altogether. Moreover, if media concentration really does have the suggested consequences for the media system as a whole then this should become manifest through the other variables of the horizontal media function.

In sum, the structural level of the horizontal function focuses on the number of media channels (quantitative diversity) as well as the plurality and balance of ideologies that the media systems represents (qualitative diversity). But this tells us nothing about which political actors actually get a chance to speak in the media as well as to what extents and in what forms. To gain insights into these questions, we need to move to the media content level.

Content level

With regard to the content level, media are required to *cover all political and social actors in a balanced, unbiased way* so that they have a voice in the public sphere (McQuail 1992: 157). However, notions about the desired participants in public debates differ considerably between theoretical traditions. For the liberal model of democracy the public sphere should be dominated by political elites, i.e., office-holders, political parties and experts (Ferree et al. 2002: 207f.). More specifically, parties – incumbent and competitors – need space and time to make their political positions publicly known at election time, and experts are required to explain the complex problems facing the society that the wider public is unfamiliar with. The participatory model of democracy, by contrast, envisions a public sphere that includes a wide range of intermediary organizations. Hence, civil society actors and grassroots movements should continuously participate in public discourses alongside the political elites (Ferree et al. 2002: 211f.). Thus, in order to accommodate both normative perspectives, the prevalence of various types of organizations in the news should be assessed. These might include the following: political parties, trade unions, economic, trade or industry associations, professional organizations, national and transnational public interest groups and religious organizations.

At least equally as important as the question of which actors should be covered is how often they should be covered relative to each other (McQuail 1992: 147f.). The two ideal type models of democracy disagree in this respect as well. According to the liberal model, the public space should not be allocated evenly to all political parties but rather proportional to their electoral or organizational strengths (Ferree et al. 2002: 207f.). Representatives of the participatory model, although somewhat unspecific regarding the matter of balance, would probably plead for an even balance between elites and actors from the civil society instead (Ferree et al. 2002: 230). Ramsden (1996) also deals with the issue of the right balance of media attention with regard to candidates in elections campaigns and thinks about both perspectives. He comes to the conclusion that „early on in political campaigns, all candidates deserve to be treated equally; as the race progresses, the media should then look to the process for clues about how to allocate coverage" (Ramsden 1996: 70). The reasoning behind this is that citizens' preferences are still unclear at an early stage in the democratic process. Thus, media need to level the playing field and give all candidates equal chances to compete for the constituents' support (Ramsden 1996: 96). Once preferences start building, however, media should consider the distribution of these preferences when allocating coverage. In other words, coverage of competitors should be proportional to their strength in the electoral race. There would be no sense in covering candidates of which it has eventually become clear that they do not stand a chance of winning. This discussion reveals that both positions – equal and proportional allocation – are essential for the conceptualization of the content level of the horizontal function.

In addition to the balance of political organizations in the news coverage, it also seems to be relevant for the horizontal function whether the media encourage debate between these actors. This is of course primarily a concern for the participatory model of democracy and its deliberative branch in particular (Ferree et al. 2002: 230). Thus, not only should the diversity of interests be represented in the public sphere somehow and somewhere, but opposing viewpoints

should also be directly contrasted with each other. This might be achieved if *many news reports take a dialogic form*, which basically refers to the inclusion of different actors within the same article or news item. According to Ferree et al. (2002: 20), this can be considered a valid proxy for the confrontation of opposing stances and thus potential dialogue.

Finally, a diverse public sphere should give speakers the *opportunity to directly voice their positions and demands*. The frequency of direct quotations of political actors or the amount of interviews could therefore be seen as an indication for how well they are able to get their unaltered messages out to the public. Likewise, large space for the publication of letters to the editor could be taken as a sign of media organizations' committment to directly include the views of regular citizens.

3.5 Summary

The aim of this chapter was to gain a comprehensive understanding of mass media's role in a democracy. The discussion of different normative theories and conceptions in section 3.1 has shown that from the perspective of the liberal model of democracy, media mainly need to provide citizens with information about the actions and decisions of their elected representatives and act as guardians of the public interest. In this sense, they are assumed to guarantee accountability. For the participatory model of democracy, by contrast, media should first and foremost provide a public forum which represents the plurality of different opinions and demands. This, in turn, might facilitate responsiveness.

Based on these two broad ideas, a two-dimensional model of democratic media performance was developed and applied to two levels of analysis. Accordingly, media are supposed to fulfill a vertical and a horizontal function, both of which were specified in more detail in the sections 3.3 and 3.4. In a nutshell, the vertical media function is interested in the distribution of information. While its structural level therefore emphasizes the broad access to media, its content level deals with the amount of political affairs, especially with regard to the malprac-

tice of incumbents, and the balance of democratic institutions in the news. The horizontal media function, on the other hand, is concerned with reflecting the diversity of interests that exist within the society. On the structural level, this requires a large quantitative and qualitative variety of media channels. On the content level, media coverage should balance and contrast different viewpoints and give them a direct voice.

A final important note as to the content level is in order. Ferree et al. (2002) do not only look at which actors should appear in the news and how often. They also consider what democracy theory has to say with regard to how and about what actors should communicate in a public discourse as well as which debate outcomes are desirable. However, as should have become clear from the discussion of the content level of both functions, this study generally focuses more on the simple quantity of media coverage about different political actors and institutions rather than its quality, style or direction. This might appear to be a quite limited view, especially given that the contemporary media's style of reporting is depicted as harmful for democracy by much of the literature in this field (see chapter 1; Kriesi et al. 2012; Norris 2000). However, from a normative view, the amount of information and diversity is most essential because „it is impossible to make summary judgments about the quality of the political information supply" (Graber 2004: 553). So what counts, especially with regard to the horizontal function, is *if* and not *what kind of* media coverage political processes and actors receive. Following Ramsden (1996), I argue that actors who manage to gain public attention have good chances of getting their messages across regardless of whether the media reports are actually favorable to them or not. Thus, „the tone of a candidate's coverage does not matter in part because unless a candidate does something especially egregious, all coverage is good coverage, since it gets the candidate in the public eye" (Ramsden 1996: 68).[16]

[16] The Swiss People's Party (SVP) is actually a good example for that. Despite the repeated claim – most vehemently from the party itself – that the SVP receives predominantly hostile media coverage, it had continually increased its vote share from 1987 up to 2007 and remains the strongest parliamentary party in Switzerland to date (see Statistical Encyclopedia of the Federal Statistical Office of Switzerland:

3.6 Preconditions of democratic media performance

Before I move on to the operationalization of the vertical and the horizontal media function in chapter 4, a few additional remarks are necessary. They concern two interrelated bundles of factors associated with media systems which are often considered in comparative media studies but which are not included into the conceptualization of the vertical and the horizontal function: media freedom and media regulation. This deliberate omission has one main reason. I argue that these aspects should not be counted as *elements* of the media's own contribution to democracy. Instead, media freedom and media regulation may be regarded as *preconditions* that – if in place – can promote the media's fulfillment of their democratic functions. In this sense, they are exogenous or independent variables which might help to explain different degrees and patterns of democratic media performance. I will elaborate on this point to conclude chapter 3.

3.6.1 Media freedom

There is no doubt that in order for media to serve democracy, they need circumstances that allow them to do so. Thus, effective freedom of the media and of speech are fundamental concepts linked to the vertical and the horizontal media function, respectively. They are important prerequisites for media businesses to be able to operate at all and to contribute to enhancing a country's democratic quality. If media owners, editors and journalists suffer state repression and constraints, such as illegal censorship, denied access to media licenses or threats, prosecutions and killings, media are not capable of accomplishing the normative demands imposed on them by democracy theory (Norris and Inglehart 2010: 196). Violations of press freedom thus limit investigative journalism and the media's ability to publish and disseminate compromising news about state actors and politics in general. Breaches and a weak enforcement of the freedom of expression further inhibit diversity, for example if mass media

http://www.bfs.admin.ch/bfs/portal/de/index/themen/17/22/lexi.Document.21769.xls (08/28/2012)).

are not allowed to cover the political opposition. However, these are all external constraints that media organizations cannot actively and directly influence. And since – as already mentioned – I am purely interested in the media's contribution to the quality of democracy such external constraints are beyond the scope of the present study.

Moreover, all analyses focus on relatively established democracies in which we would expect media freedom to be highly guaranteed. Thus, although there obviously are more or less subtle forms of state intrusion into the media sphere even in these countries (Curran 2011: 15), a basic level of press freedom can safely be taken for granted.

3.6.2 Media regulation

A second aspect which can determine the media's compliance with their democratic role is media regulation or media governance. The assumed influence of media regulation might actually work both ways since depending on its design and implementation, it may inhibit or promote media performance. Hence, it can be considered a double-edged sword.

First, a country's legal framework is supposed to limit government control over the media and create an enabling opportunity structure. For example, it is significantly easier for the media to fulfill the obligations of the vertical function properly if there are legal disclosure rules which require politicians and parties to reveal their sources and levels of income and expenditures. Similarly, an effective freedom of information legislation considerably enhances the media's access to political information and fosters transparent and independent news coverage (Florini 2007; Islam 2006; Relly and Sabharwal 2009).

Furthermore, „media policy should not be confined to securing media freedom from government control" (Curran 2011: 9). Since the media have a duty to serve the public good, they cannot be left to act freely according to market imperatives alone. This widely held opinion is exemplified by Gunther and Mughan's (2004: 444) claim that the de-regulation of the media sector, driven by legislators, is responsible for the decay of the media's democratic perfor-

mance. This perceived need to prevent market failure mostly plays out in terms of the horizontal function's concern of diversity. Hence, on the structural level, formal media regulation often aims at limiting media and media ownership concentration as well as at directly funding or subsidizing media organizations, especially in the print sector (Djankov et al. 2003: 353f.). On the content level, media governance focuses on guaranteeing impartiality and a balance of viewpoints, foremost in the broadcast sector and especially public service media (Street 2011: 316). Examples are the former 'fairness doctrine' by the Federal Communications Commission (FCC) in the United States requiring broadcasters to present contrasting positions on all issues (Curran 2011: 23), legal obligations to give political candidates and parties free airtime in electoral campaigns or the laws regulating the composition of broadcast supervisory bodies (Hallin and Mancini 2004: 30-33). Generally, the electronic media sector is more strongly regulated than the press. This has historical and technical reasons. Initially, the availability of radio frequencies was limited so that „systems of regulation and licensing were needed to distribute and control this access" (Street 2011: 312f.). Further limitations of media content in the name of democracy and social cohesion are enforced by so-called hate speech or libel laws which are supposed to prevent defamation, such as openly communicated racist or other forms of public discrimination.

But while all these different rules might be in the public interest they also constitute potentially harmful intrusions of the state into the media sector and can therefore be regarded as restrictions of the media's independence. This illustrates why and how media regulation and media freedom are interrelated. Media regulation may easily be and actually is abused by state actors to increase their power and control over the media (Curran 2011: 15; Djankov et al. 2003: 353f.). For example, and as mentioned in the previous section, public authorities can deny licenses to media outlets which seem to compromise them in their news reports. According to Djankov et al. (2003: 354), such pressures have, for example, been observed in Malaysia. Moreover, governments may sanction unfavorable media coverage on the basis of hate

speech legislation or alleged national security concerns (Djankov et al. 2003: 354; Graber 2003: 142; Norris and Inglehart 2010: 196). Incidents of such practices have even been reported for established democracies like Germany, Ireland or the Czech Republic (Dragomir 2010: 269). Furthermore, executive and legislative actors may also influence the selection of broadcast supervisors or public broadcast executives according to their preferences (Hanretty 2009). Hence, the line between media regulation which clearly benefits democracy and too much interference by state officials to increase their power is blurred.

So on the one hand, media regulation acts as an external constraint or catalyzer which shapes the configuration of media systems and media content. It should therefore be considered an independent variable which can explain the observed outcomes in terms of media performance. On the other hand, the discussed ambiguity of media regulation further speaks against including it into the conceptualization of the two democratic functions of the media. Since scholars and politicians alike differ greatly with regard to this issue, it seems that the extent and nature of media governance appropriate for democracy is too difficult to determine objectively in the context of this study.

Chapter 4:
Measuring the vertical and the horizontal media function

Chapter 3 argued that the two media functions, the vertical and the horizontal function, can be conceptualized and assessed on two different levels of analysis. Accordingly, I will conduct a structural and a content analysis to evaluate the media's democratic performance, measuring as many of the variables listed in tables 3.1 and 3.2 (see chapter 3) as possible. This chapter serves to explain in detail the designs of the two types of analyses. For each type, I will present the country and media samples used, the methodological approach applied as well as the actual indicators derived, starting with the structural level (section 4.1) and then moving to the content level (section 4.2).

4.1 Structural analysis

4.1.1 Country samples

From a comparative point of view it is of course desirable to examine the democratic performance of mass media for as many countries as possible, in order to get a broad and systematic picture and to conduct causal analyses. However, as emphasized repeatedly, the present study focuses on the media and their impact on the democratic quality within so-called established democracies. What does that mean? Following the logic of Bühlmann (2011) as well as Bühlmann et al. (2011a, 2012), we can define those countries as established democracies which score high on the Freedom House[17], Polity[18] and Vanhanen (2003) index over a certain period of time. These three indices are probably the most widely used measures of democracy (Coppedge et al.: 2008; Munck and Verkuilen 2002). More specifically, using data from

[17] http://www.freedomhouse.org/report-types/freedom-world (08/28/2012).

[18] http://www.systemicpeace.org/polity/polity4.htm (08/28/2012).

1990, 1995, 2000, 2005 and 2010, a country has to be rated 'democratic'[19] in at least three of these years (two years in the case of Vanhanen (2003), which only provides data up to 2000) by at least two of the three indices in order to qualify. Following these selection criteria, 77 countries can be considered (more or less) established democracies.[20] In the sense that only more mature democracies are studied, this book arguably follows a most similar systems design (Przeworski and Teune: 1970) even though one cannot neglect that there is quite a large variety of economic and social contexts among the countries considered. But the prospect of being able to assess and compare the media's democratic performance on a large scale justifies this rather broad definition of what an established democracy is.

There are two main reasons for this limitation to established democracies. The first one is motivated by theoretical and analytical interest. In chapter 1 it was posited that the notion of positive effects of mass media for democratization processes is largely unchallenged (Gunther and Mughan 2000). At the same time, the contribution of media to the functioning of more stable democracies is hotly debated although there is a lack of systematic empirical and comparative research. Thus, it seems more fruitful to take a closer look at this specific group of political regimes. The second reason is of pragmatic nature. As mentioned in the introductory chapter, the availability of reliable data covering both a large range of countries and years is generally not abundant. It is, however, still easier to find data for industrialized than developing countries.

[19] Freedom House: status 'free'; Polity: Polity score of 7 or more; Vanhanen: ID score of 5 or more.

[20] Argentina, Australia, Austria, Bahamas, Barbados, Belgium, Benin, Bolivia, Botswana, Brazil, Bulgaria, Canada, Cape Verde, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Guyana, Honduras, Hungary, Iceland, India, Ireland, Israel, Italy, Jamaica, Japan, Latvia, Lithuania, Luxembourg, Madagascar, Mali, Malta, Mauritius, Mexico, Moldova, Mongolia, Namibia, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Senegal, Slovakia, Slovenia, Solomon Islands, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Trinidad & Tobago, Turkey, United Kingdom, United States, Uruguay and Venezuela.

With respect to the structural analysis, the period of examination covers the years 1990 to 2008. Again, this has both theoretical and pragmatic reasons. As for the former, in order to avoid a Western bias in the country sample, I wanted to be sure to include democracies from different regions even if some of them are still relatively young. In many parts of the world, however, countries only became democratic in the late 1980s or early 1990s in the course of the so-called "third wave of democratization" (Huntington 1991). The most prominent example is of course the democratic transition of Eastern European countries after the collapse of the Soviet Union. From the perspective of mass media studies, it is also reasonable to choose 1990 as a starting point. Especially Western European countries experienced a phase of media deregulation and commercialization, mainly through the dualization of their broadcast sectors, in the 1980s (Dragomir 2010: 247). Hence, media systems looked much different in the 1990s compared to a decade before. The pragmatic reason again relates to data availability. Unsurprisingly, access to the kind of data used for the structural analysis (see section 4.1.2) increases significantly in more recent years. In addition, many data sources are hardly available before the 1990s. Examples are various annual handbooks, such as the World Press Trends or the statistical yearbooks of the European Audiovisual Observatory (see below).

Despite these pragmatic considerations, not all of the indicators to be specified in section 4.1.2 are available for all of the 77 countries identified as established democracies. Moreover, for some countries too many data points are missing. Thus, it is necessary to work with different subsets of indicators and established democracies. More precisely, two different samples were defined.

The first includes the maximum number of countries that provide a fairly good data availability for many indicators across the years 1990 to 2008. For the sake of convenience we might call it sample 1 or large country sample. It consists of the following 47 countries: Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus,

the Czech Republic, Denmark, Finland, France, Germany, Greece, Honduras, Hungary, Iceland, India, Ireland, Israel, Italy, Japan, Luxembourg, Malta, Mexico, Mongolia, the Netherlands, New Zealand, Norway, Panama, Paraguay, Peru, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States and Uruguay. This includes all OECD countries except Estonia, as well as 14 additional countries from Latin America, Asia and Eastern and Southern Europe. Unfortunately, not all of the indicators derived to measure the horizontal and vertical media function on the structural level (see section 4.1.2 below) are available for all of these 47 countries. Instead, analyses with this large country sample 1 will have to rely on a core set of nine indicators.

The second country sample – sample 2 – is considerably smaller but has data for all of the indicators of interest with significantly fewer missing country-year pairs. Hence, it allows for more differentiated analyses of the media's fulfillment of the horizontal and vertical media function on the structural level. Sample 2 equals a subset of sample 1 and includes the following 24 countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom. These are all the European countries from sample 1, with the exception of Turkey and the small states Iceland, Luxembourg and Malta, which are missing in many social science datasets.

4.1.2 Data and indicators

The structural analysis of media systems is based on secondary data on media markets and landscapes from statistics, evaluations, handbooks and databases from a variety of scholars and organizations. Most of these sources provide data for multiple years. However, the selected time period is not always fully covered so that missing country-years had to be replaced. Unless otherwise noted, this was done by copying the values from other years back and/or forth or by arithmetic means for missing values in between two observations. Since the time

series for many of the indicators are far from complete, especially when it comes to the early 1990s, developments over time have to be interpreted very cautiously. The subsequent discussion of the indicators will explain in more detail which sources were used and which time frame is available for each specific item. A summary of this as well as the descriptive statistics of all the indicators can also be found in tables A4.1 and A4.2 in the appendix.

The factors defined to measure the vertical and the horizontal media function for democracy in terms of media structures are listed in table 4.1. All of them are scaled in such a way that higher values indicate higher democratic performance.

Table 4.1 *Overview of media function indicators – structural level*

	Components	**Indicators**
Vertical function	Access to information	• Daily newspaper circulation per 1'000 inhabitants • Number of radio sets per capita • Number of TV sets per capita • Number of computers in % population • Number of Internet users in % population
Horizontal function	A. Quantitative diversity	• Number of daily newspaper titles per 1 million people • Newspaper import in % GDP • Number of TV stations received • Percentage of TV households receiving foreign/international TV news channels
	B. Qualitative diversity	• Ideological balance of politically aligned newspapers • Share of politically neutral newspapers' circulation • Strength of the public broadcast sector

Table 4.1 basically corresponds to the upper halves of tables 3.1 and 3.2, but the last column now lists the indicators for those variables for which data is actually available. Hence, some of the variables defined in chapter 3 could not be operationalized. This mainly concerns the geographical distribution of media access and low prices for media services in the case of the vertical function. In terms of the horizontal function, this applies to the regional diversity of media outlets as well as the existence and availability of channels of communication for linguistic and other minorities. Two of the indicators described below, however, can at least be regarded as proxy measures for minority media.

The vertical function

As discussed in chapter 3, for the vertical media function, media structures should guarantee the equal and easy access for the whole electorate to necessary information. Thus, media penetration should be high. This is assessed by five indicators which are all available for the 47 countries of the large country sample 1.

For print media, the *circulation of daily newspapers per 1'000 inhabitants* (paid and free dailies) is measured. I focus on daily newspapers because they are the dominant entities within the print media sector and the „primary objects of choice for the ordinary citizens" (Voltmer 2000: 13). Circulation data is taken from the "World Press Trends" handbooks, published annually by the World Association of Newspapers (WAN), and population data from the World Bank.[21] I had access to the WAN editions 1996 to 2008, which provide data for the years 1993 to 2007. The remaining years (1990 to 1992 and 2008) were replaced by the nearest values whereas single missing country-years were replaced by linear interpolation, i.e., the arithmetic means of the adjacent values.

The distribution of the communication infrastructure within the society is further assessed by the number of *radio as well as television sets per capita*. Both indicators combine data from the "Cross-National Time-Series Data Archive" (BCNTS; Banks 2011) and the International Telecommunication Union's (ITU) "World Telecommunication/ICT Indicators Database".[22] For every country, the database which offered the longer time series was used. Unfortunately, in the case of the radio indicators data is largely missing for the 2000s in many countries. As for television sets, data for all but five countries comes from the ITU. This indicator also exhibits a considerable amount of missing values in the second half of the 2000s (on average the

[21] World Bank database: http://databank.worldbank.org (08/28/2012).

[22] ITU: http://www.itu.int/ITU-D/ict/publications/world/world.html (08/28/2012). In addition, population figures from the World Bank were used to calculate per capita rates of radio sets.

last three years of observation). All missings were replaced by linear inter- and extrapolation[23], which seemed appropriate in these two cases.

Finally, the diffusion of new media is measured by two indicators, namely the *number of personal computers and the number of Internet users as a share of the population*. The two measures are likely to be closely associated because individuals with a personal computer are more likely to have access to the Internet. The figures for the number of personal computers are again taken from the ITU. The percentage of Internet users, by contrast, comes from the World Bank database (see footnote 21) and is only complemented by ITU data for three missing country-years (Australia 2002-2004). Thus, for this indicator virtually no missing years had to be replaced by linear inter- and extrapolation. If any, mostly the early 1990s were concerned. For the number of personal computers per 100 inhabitants, however, mostly the last three years of observation were missing and replaced, again, by linear extrapolation.

The horizontal function

According to the horizontal media function, media should guarantee a diverse public forum so that all groups and interests within the society can find a platform to express themselves and be heard. On the one hand, this requires quantitative diversity, i.e., a multiplicity of communication channels. On the other hand, there should also be qualitative diversity in the sense that the media system represents a variety of viewpoints.

A. Quantitative diversity

With regard to the print sector, the first component – quantitative diversity – is measured by the *number of daily newspapers per one million inhabitants* (paid and free dailies). Just like the press indicator for the vertical media function, the respective newspaper data originates from the WAN (World Press Trends) and it is weighted by population figures from the World

[23] Essentially: $X_{Prog} = X_t + (X_t - X_{t-1})$

Bank. And again, missing years (primarily 1990 to 1992 and 2008) were replaced by the nearest data points or linear interpolation.

A second indicator captures the *total dollar value of newspapers, periodicals and journals imported from abroad as a share of a country's gross domestic product* (GDP, in current USD). The influx of foreign newspapers directly contributes to quantitative and possibly even qualitative media diversity. Foreign newspapers do not only enlarge the offer of available press titles, they might also provide quite different perspectives on domestic issues than domestic media suppliers. Moreover, newspaper import can be considered a proxy measure for the existence and plurality of communication channels representing immigrant minorities. To some extent it therefore represents the third variable for quantitative diversity defined in chapter 3 as well (see table 3.2). Data for a country's volume of newspaper import comes from the United Nations Commodity Trade Statistics Database (UN COMTRADE)[24] and GDP figures from the World Bank (see footnote 21). For most countries, data is only missing for the year 2008 and maybe some of the early 1990s. These values were replaced by the nearest existing value.

Moving to the electronic media sector, quantitative diversity is further assessed by the *number of all television stations received in a country*. Getting data for the number of TV channels turned out to be surprisingly challenging since respective data sources are not only rare but also unreliable, at least if one wants to compare countries. As the relevant handbooks and publications explicitly warn, the information provided by the responsible national authorities differs largely from country to country because there is no agreement on which channels to count and how to classify them.[25] This makes country comparisons rather tricky. Neverthe-

[24] http://comtrade.un.org/db/ (08/28/2012). Settings: Commodity = '4902'; Partner = 'World'.

[25] Should broadcast statistics for example count a) all channels which can potentially be received in a country, only those received by certain share of the population or only those produced within the country for the domestic market; b) national, regional and/or local channels; c) terrestrial, cable, satellite and/or digital channels; etc..

less, in order to maximize cross-national coverage, the indicator reflects the number of all television stations received in a country, irrespective of their financial form or means of transmission and mostly also of their origin or genre. Thus, this indicator only gives a very rough picture and it also consists of a combination of four data sources with slightly different criteria for counting the number of TV channels. First, the annual publication "Television: International Key Facts", edited by the IP International Marketing Committee (IP) was used. The respective figures equal the total number of channels received by at least 70% of a country's population and they were available for the years 2000 to 2005.[26] Second, Eurostat (2003: 157) lists the „total number of TV programme services of national origin […] located on the economic territory and which are primarily intended for targeting national audience (whatever distribution coverage)". The report includes data for 1990 and 1995 to 2002, in the best case. Third, from the 2008 statistical yearbook of the European Audiovisual Observatory (EAO) I derived the number of national television channels with a focus on information, i.e., whose main programming is generalist or includes business, culture, education, documentaries, news or parliamentary affairs. Finally, information about the plurality of television stations can also be found in the statistical database of the United Nations Educational, Scientific and Cultural Organization (UNESCO).[27] While this source provides data for 84 countries, it is also least specific about its measurement. Thus, the values vary considerably both across and within countries.[28] Moreover, only one or two data points per country between 2004 and 2006 are available. These four data sources were cross-checked and assembled in such a way as to construct the longest time series with the most reasonable data possible for each country. Howev-

[26] Only the IP handbooks from 2004 to 2009 are at my disposal, and the editions after 2005 do not include this indicator anymore. I therefore thank Christine Benesch (Department of Economics, University of St.Gallen) for providing me with her data for the years 2000 to 2003 (see Benesch et al. 2010; Frey et al. 2007).

[27] http://www.uis.unesco.org/Pages/default.aspx (08/28/2012).

[28] For example, the database lists 352 TV stations in the Czech Republic in 2005 but only 5 in 2006.

er, on average still over half of the 19 years were missing for the countries in samples 1 and 2 and therefore had to be filled up by the nearest values.

Similar to newspaper import, quantitative media diversity should also be measured by the availability of foreign news sources in the electronic media sector. This might be especially important for language minorities who would otherwise be excluded from a country's public sphere. For this reason, I constructed an indicator reflecting the *percentage of television households receiving foreign and/or international TV news channels*. More specifically, the IP handbook 2009 contains information on the share of households which are equipped with a television set and can receive the following 24-hour news channels: BBC World News, CNN, Euronews, France 24, Sky News and TV5 Monde. The mean of these six reception rates was calculated for every country included in IP (2009) and then copied to all other years. Hence, there unfortunately is no longitudinal data available for this indicator.

The broadcasting sector does of course not only consist of television. Radio still plays an important though somewhat less pivotal role as a source of information too. Thus, it would also be relevant to capture the quantitative diversity of different radio stations. However, the uncertainties with regard to the availability of data and the measurement of the electronic media landscape are even larger in this area so that no reliable data could be found.

In sum, only two of the four indicators described for the quantitative diversity component of the horizontal media function are available for the larger sample with 47 countries. This applies to the two press indicators, which measure the relative number of daily newspaper titles and the relative amount of imported newspapers. The other two indicators assessing the electronic media system in terms of the number of television stations and the reception of foreign news channels can only be used for analyses with the smaller sample of 24 countries. Moreover, they only cover the television but not the radio sector.

B. Qualitative diversity

Contrary to quantitative media diversity, qualitative diversity is not about the sheer number of communication channels but rather the variety of different forms of channels and programs or, in other words, the plurality of opinions within the media system. In this respect, the two concepts of external and internal opinion diversity were discussed in chapter 3 (see 3.4.1).

Both of them were directly operationalized with regard to the press system, closely following Voltmer (2000). Hence, external opinion diversity is measured by the *ideological balance of politically aligned newspapers*, i.e., the extent to which the different political orientations of newspapers balance each other out on the aggregate. Internal opinion diversity, by contrast, reflects the extent to which the press system is characterized by neutral or politically unaffiliated newspapers, or more specifically, the *share of politically neutral newspapers' circulation*. For both purposes, one first of all needs information about the political orientations of newspapers. While previous research relied on survey data and the party preferences of an outlet's audience (e.g. Van Kempen 2007) or simply respondents' ratings of media outlets (e.g. Schmitt-Beck 2003, 2004) this was not an option for the present study. The necessary data would neither be available for all countries nor over time. So instead, newspapers were coded on the basis of expert ratings. In general, the yearly editions of the "Political Handbook of the World" (Banks et al., various years) served as a starting point for the coding procedure. They provide a list of what they consider the most important regional and national, daily and weekly newspapers for every country, including their circulation and ideological leaning as rated by experts. It does not become clear on what grounds exactly the newspapers are chosen and rated (e.g. by their endorsements of political parties or the partisanship of their readers), but a comparison with the top ten circulation newspapers according to the World Press Trends (WAN) revealed that the largest newspapers were represented in almost all countries. On the basis of the indicated political affiliations, each newspaper was assigned a code between 1 and 6 as used by Voltmer (2000: 22). 1 to 3 roughly represent the left side of the political

spectrum, 4 to 6 the right side.[29] Newspapers listed as 'independent' were considered neutral and therefore received the middle value of 3.5. Similarly, newspapers without indication of their ideological position were pragmatically coded as 3.5. In order to get a more accurate picture and to reduce the problem of lacking information as far as possible, additional sources were used to complement and crosscheck the political ratings in Banks et al. (various years). These were in particular Blum (2005b: 124), Hans-Bredow-Institut (various years), Kelly et al. (2004), Popescu et al. (2010)[30] and Østergaard (1992) as well as several websites[31].

Using these newspaper codes, two indicators were created. The first reflects external opinion diversity. It is calculated by the absolute deviance of the weighted average of all newspaper codes (weighted by newspapers' circulation) from the center position 3.5, multiplied by -1.[32] This measure equals 0 if the political orientations of all newspapers of a country average to 3.5, i.e., if they completely balance each other out. By contrast, the variable reaches its mini-

[29] 1 = "far left" = Parties: Communists; general ideology: extremely leftist, communist. 2 = Parties: Socialists, Social Democrats, Labor Parties; general ideology: leftist, liberal (USA). 3 = Parties: Liberals; general ideology: liberal, moderate. 4 = Parties: religious parties, Christian Democrats; general ideology: center, religious. 5 = Parties: Conservatives; general ideology: conservative, rightist, monarchist. 6 = "far right" = Parties: Nationalists; general ideology: extremely rightist, nationalist. (See Voltmer 2000: 22). A clarification with regard to code 3 is necessary since the political label 'liberal' has very different meanings in different contexts. Whereas it mostly denotes social liberalism and thus center-left parties on the American continent it stands for economic or neoliberalism and thus conservative ideologies in many European countries. Clearly, code 3 would only be appropriate in the former case. Hence, efforts were made to establish what kind of ideology and/or political party is associated with the term 'liberal' in a country before coding newspapers rated as such. As a result, while for instance the "El Tiempo" in Honduras received the code 3, the "Neue Zürcher Zeitung" from Switzerland was coded as 5 even though both are rated as 'liberal' or 'independent liberal' by Banks et al. (various years).

[30] Popescu et al. (2010) conducted a survey of a total of 659 experts in 34 European countries. Among other things, experts had to indicate for a number of newspaper and television stations in their countries which political parties they are close to as well as to what degree on a scale from 0 to 10 they advocate specific political viewpoints. This information provided valuable input for the coding of newspapers.

[31] Wikipedia (http://www.wikipedia.org/), Worldpress.org (http://www.worldpress.org/gateway.htm) and Mondo Times (http://www.mondotimes.com/newspapers/). (08/28/2012).

[32] The following formula illustrates this: PA_i is a newspaper's political affiliation, C_i its circulation and F_i its frequency of appearance per week. Accounting for C_i and F_i ensures that smaller newspapers and non-dailies receive less weight in the calculation of external opinion diversity.

$$Diversity = \left| 3.5 - \frac{\sum(PA_i \times C_i \times F_i)}{\sum(C_i \times F_i)} \right| \times -1$$

mum value of -2.5 if all newspapers within a country can be characterized by the extreme code 1, or 6 respectively. The second indicator refers to internal opinion diversity and it corresponds to the circulation of neutral or politically independent newspapers, i.e., those with the code 3.5, relative to the total circulation of all newspapers in the list of the respective country. Since the "Political Handbook of the World" appears annually since 1989 (except 1999, 2003 and 2004) and covers the whole world, it was possible to construct a solid time series for nearly all countries in my sample even though on average about seven missing years had to be replaced by running means in between available data points. However, since press markets do not often change drastically and since newspaper affiliations usually have a long history and are therefore rather stable, the indicators do not vary greatly over time in most countries.

Qualitative diversity is more difficult to measure with regard to the electronic media sector and no direct operationalization of internal and external opinion diversity was found. Instead, as a proxy for internal diversity, the only broadcast indicator for this component of the horizontal media function focuses on the *strength of public broadcasters*. Public service channels can be defined as having a public service obligation and being fully or partially financed by license fees, public subsidies or any other form of state funding (Eurostat 2003: 157). This public service obligation requires them to inform and educate as well as represent all citizens. Accordingly, the BBC – which is traditionally considered to be the role model of public broadcasting and is the largest, best-resourced public broadcaster in the world (Curran 2011: 48) – states the following six public purposes: 1) sustaining citizenship and society, 2) promoting education and learning, 3) stimulating creativity and cultural excellence, 4) representing the UK, its nations, regions and communities, 5) bringing the UK to the world and the world to the UK, and 6) delivering to the public the benefit of emerging communication tech-

nologies and services.[33] Especially in light of the fourth point, it becomes clear that public broadcasters play a crucial role in guaranteeing the plurality of opinions and interests in the public sphere as demanded by the horizontal media function. Private channels, by contrast, have no or only few programming guidelines, and they are financed by advertising, sponsorship or subscription fees, but not public resources (Eurostat 2003: 157). Hence, given that internal opinion diversity is expected from public but not necessarily private broadcasters, a strong public broadcast sector seems desirable in terms of the horizontal media function.

The strength of public television is assessed by the multiplication of three indicators. Hence, a) the percentage of public TV channels as a share of all domestic TV channels, b) the market share for public broadcasters and c) the independence of public broadcast systems were multiplied. The primary sources for the first indicator are the IP handbooks (Television: International Key Facts) 2004 to 2009. For every country, they give a full list of television channels, indicating their origin, founding year, form of finance and their genre or focus. From these lists, I compiled figures for the number of (mainly) publicly financed channels from and for the domestic market with a generalist or news focus, and likewise for privately or commercially financed channels. Next, I calculated the share of public stations from the sum of public and private stations. Although only the IP handbooks from 2004 to 2009 are at my disposal I was able to reconstruct the full time series of the indicator because the handbooks provide the founding year for each channel. This, however, disregards any television channels that stopped operating between 1990 and 2003. Since this should apply to rather few stations, this problem seems negligible though.

Similarly to weighting newspapers by their circulation for the measures of opinion diversity, weighting the number of public channels by their market share is necessary in order to capture their actual importance in the media system. Thus, the second item of the public broadcast

[33] http://www.bbc.co.uk/aboutthebbc/insidethebbc/whoweare/publicpurposes (08/28/2012).

index equals the average share of TV viewers watching public channels throughout the day. This data originates from three sources: the IP and EAO yearbooks as well as statistics from Nordicom[34] and Leckner and Facht (2010). Where they overlap, the three sources are very congruent but they were mostly used to complement each other in order to achieve the best possible cross-country and longitudinal coverage. The combination allowed for an almost complete time-series for at least the smaller country sample. Again, missing country-years were replaced by copying the nearest values or, in the case of missings in between existing data points, running means.

However, a large and dominant public broadcast sector should only be counted as contributing to the plurality of opinions represented in the public sphere if it is not biased in favor of particular political interests and actors, particularly the state. The problem that public service television is largely controlled by the government for example still persists in many Eastern European countries (Dragomir 2010). For this reason, the two previous indicators are further weighted, i.e., multiplied, by a measure for the independence of public service broadcast systems (PSB), which ranges on a scale from 0 to 1 with higher values indicating higher independence. The respective data is taken from Hanretty (2009) who has developed a rough PSB de facto independence index for 34 countries, including 20 of my sample 2 countries. The index equals the average of the turnover rate of PSB's chief executives and a so-called "political vulnerability" measure (Hanretty 2009: 77). The turnover rate reflects the idea that chief executives who have been in office longer and are more experienced are better able to withstand political pressures. The political vulnerability measure reports how closely connected changes of the government and changes of PSB chief executives are, i.e., whether the former is usually followed by the latter or not. The mean values of these two indicators are subtracted from 1 so that larger scores indicate higher independence. Moreover, the index is calculated over a period of 20 to 50 years up to 2006 or 2007. Thus, the period of interest in the present

[34] http://www.nordicom.gu.se/eng.php (08/28/2012)

study is mostly covered, but the indicator is constant over time. For four countries of my smaller country sample, namely Croatia, Cyprus, Greece and the Netherlands, Hanretty's (2009) index is not available. Thus, the scores for these four countries were imputed by means of a simple OLS regression[35] on the basis of the survey data conducted by Popescu et al. (2010; see footnote 30). Experts had to assess whether the journalistic content of public television in their country is entirely free from governmental political interference on a scale from 0 (not at all) to 10 (very much) and theirs answers were averaged per country.

Just like for the quantitative diversity component, only the two press indicators for qualitative diversity, i.e., internal and external opinion diversity are complete for the large 47-country sample (sample 1). The item that looks at the strength of public television, however, is only available for analyses with the smaller country sample (sample 2). This means that global conclusions about media performance in terms of the horizontal function will unfortunately have to be limited to the print sector. Moreover, it needs to be noted that the second component of the horizontal function, qualitative diversity, does not include any measures related to the radio either. A further major limitation is that one increasingly important public forum and source of information – the Internet – will not be considered systematically. Reasons und justifications for this neglect have already been discussed in chapter 3 (see 3.4.1). Nevertheless, the amount and quality of the indicators should be sufficient to gain substantive insights into the democratic performance of media systems in a wide range of countries.

[35] Correlation between the two different indicators: Pearson's r = 0.659. Regression coefficients: $\alpha = 0.395$, $\beta = 0.714$.

4.2 Content analysis

4.2.1 Country sample

Data for the content level is generated by means of a semi-automated content analysis of the news coverage of important media outlets in various countries.[36] Such a computer-assisted approach, which will be outlined in detail subsequently, is necessary in order to analyze news coverage from a relatively large sample of countries and days as well as in different languages. However, due to the large effort and time a content analysis requires and because of limitations imposed by language barriers and the availability of media coverage, even fewer countries are available for analysis than in sample 2 for the structural level. More specifically, data for media performance on the content level was only collected for the following ten countries: Australia, Austria, Canada, France, Germany, Ireland, New Zealand, Switzerland, the United Kingdom and the United States. These were mainly chosen for practical reasons since they correspond to those cases among established democracies with access to enough news material and for which I possess good language skills.

But even though the country selection primarily followed pragmatic considerations, with regard to cross-national media studies, they still constitute an interesting and diverse set of cases. For example, all of Hallin and Mancini's (2004) already much-discussed types of media systems are represented. First, Canada, Ireland, the United Kingdom and the United States belong to Hallin and Mancini's (2004) liberal or North Atlantic model. Second, Austria, Germany and Switzerland are part of the democratic corporatist or North/Central European model. The polarized pluralist or Mediterranean model, finally, is covered by France. Thus, unfortunately, this last model is somewhat underrepresented, which is even aggravated by the fact that France is not considered a clear manifestation of this media system type by the authors.

[36] I thank Bruno Wueest (Department for Political Science, University of Zurich) for his important contribution to the content analysis of this study, ranging from general expertise and assistance in the conceptualization phase, the compilation of keyword lists as well as the technical implementation of the semi-automated data collection.

Moreover, Australia and New Zealand are not studied by Hallin and Mancini (2004). But given that both are former British colonies, one may assume that they would share the media culture of other Anglo-Saxon countries and can thus be classified as liberal models as well (also see Blum 2005a: 9) This of course further skews the balance of the country sample in favor of this particular type of media systems. However, it is worth noting that Hallin and Mancini's (2004) omission of Australia and New Zealand is no singular case. To the best of my knowledge, these countries are rarely ever included in comparative studies of media content. Hence, even though their consideration might give the liberal type of media systems an extraordinary weight in my country sample, enlarging the scope of analysis beyond Europe and North America should be of value in its own right.

The time frame investigated spans the year 2008. It was important to select the same period of examination in every country in order to ensure that media coverage would be equally affected by exceptional events or incidents of international attention in all countries.[37] 2008 was an election year in four of the ten countries (Austria, Canada, New Zealand and the United States), a factor which will have to be considered in the later analyses.

4.2.2 Methodological approach

In what follows, I will first discuss the selection of media outlets and articles for the content analysis and then turn to the description of the semi-automated coding procedure.

The media and article sample

A computer-assisted analysis requires media content which is available in electronic full text and largely standardized form. While this is fairly easy to obtain for a large variety of print outlets, I could not find transcripts of news broadcasts from all countries. Hence, for the sake of comparability and also due to time constraints, the content analysis was limited to press

[37] In addition, the original idea was to study five years, namely 2004 to 2008, so that a full electoral cycle or legislative period would be covered in all the countries analyzed. However, this again proved to be too time-consuming.

titles. It will therefore not be possible to formulate assumptions about the quality of the democratic performance of mass media in general on the content level.

The relative importance of the print sector compared to other types of media varies from country to country. Whereas television is for example the dominant medium in Southern European countries because a strong commercial mass press has never really evolved there, the print sector traditionally plays a significant role in Northern and Central Europe (Hallin and Mancini 2004; Norris 2000: 89). Gunther and Mughan (2000) generally attribute the greatest influence on the formation of individual political attitudes to television. They estimate the impact of the press to be more modest because individuals tend to only read those newspapers that are in line with their political preferences, at least under conditions of external opinion diversity. Evidence of the effects of radio news is less clear-cut but suggests that they resemble those of the print media (Gunther and Mughan 2000: 419). In a similar vein, Norris (2000) states that television news have a larger audience than newspapers. Nevertheless, electronic media have not replaced but rather supplemented the print media. Accordingly, people combine different of the more varied and more readily available news sources, and thus, „news consumption has increased, and the audience has broadened" in general (Norris 2000: 118). Hence, newspapers are still influential channels of information everywhere.

Finally, Internet news sources will not be included in the media sample for the content analysis either because it would be very hard to decide on what grounds the relevant websites for analysis should be chosen. In addition, citizens looking for political information on the World Wide Web often turn to the online editions of traditional news sources (Curran 2011: 115; Curtis 2004: 415; Gibson et al. 2005: 571; Gibson and McAllister 2011: 234).

The newspapers selected for the content analysis are listed in table A4.3 in the appendix. They represent five titles out of the ten paid daily newspapers with the largest circulations and which appear at least five times a week (according to the World Press Trends 2008 edition) in

each of the ten countries under study. As already mentioned, daily newspapers are the most visible actors and most important sources of information for citizens within the press market. Furthermore, the ten largest newspapers are those with the broadest reach. Therefore, they are the major players in the print sector and play a decisive role for the media's contribution to the quality of democracy. Again due to difficult availability, free newspapers were not considered, even though they undoubtedly play a crucial role in in media systems.[38] Hence, for every country, if news material from the top five of the daily paid newspapers in terms of circulation could be obtained, they were selected. If not, I moved further down the top ten list until five titles were sampled. Two exceptions to this rule need to be mentioned however. In Germany, six instead of five newspapers were selected. This is because the "Kölner Stadt-Anzeiger" and the "Kölnische Rundschau" are two separate newspapers from the same publishing house, but only their joint circulation is reported by the publisher. Together, they had the third highest daily circulation among German paid daily newspapers in 2008. Thus, both titles were analyzed. By contrast, only four newspapers were available for analysis in Ireland. This was accepted since the World Press Trends only list eight top paid daily newspapers in Ireland anyway. For this reason, it can be argued that the media sample still represents half of the Irish top-selling daily newspapers.

Table A4.3 shows that the resulting selection of the 50 newspapers represents a good sample of cases in most countries. In nine of the ten countries, the top circulation newspaper within the daily paid print sector is part of the analysis. The only exception is Germany, where the highest selling "Bild" was not available in any of the newspaper databases I had access to. For the very same reason, Germany is one of two countries where no tabloid-style newspaper was included in the sample, the other one being New Zealand. In all of the other countries, the sample is composed of both tabloid and broadsheet print outlets. Furthermore, in seven of ten countries, both newspapers from the left and the right side of the political spectrum are repre-

[38] In Switzerland, for example, the free newspaper "20 Minuten" has the highest circulation (WEMF 2008).

sented in the sample although the latter mostly outweigh the former. Finally, a newspaper considered 'independent', i.e., neutral or unbiased, can be found among the newspapers from most countries as well.

The sampling of articles followed a so-called "artificial week" approach (Bauer 2000), modified in that I left out every other week and weekday. Hence, for every of the 50 newspapers I selected the Monday of the first week in 2008 (January 7), the Wednesday of the third week, the Friday of the fifth week, the Tuesday of the seventh week and so on until the end of the year.[39] Saturdays and Sundays were not considered. On the 26 days chosen, all articles contained in a newspaper were sampled. This technique guarantees that a representative sample of the press coverage in 2008 was selected. First, the sample is not biased by specific periods of the year or any major events taking place during specific weeks. This is crucial for my research questions. I do explicitly not want to base my research on a predefined set of issues. Quite to the contrary, I am interested in the general democratic performance of the media, regardless of the topic or the stage of the political process that is being covered. Nevertheless, it will be interesting to see to what extent the media's performance varies around and between elections. Second, the selection of different days of the week helps controlling for different styles of news coverage as well as the timing of political events within the week. For example, print news coverage on Mondays usually differs considerably from that on Fridays in terms of volume. Similarly, while press conferences by political actors are typically rather held on workdays, elections predominantly take place on weekends (which are then covered by the media on Monday). Third and again, sampling the same days for all countries ensures that news coverage is equally affected by incidents with an international impact, such as EU summits for the European cases.

[39] Table A4.4 in the appendix lists the dates of the days sampled including possible deviations from this schedule for individual newspapers.

Column 4 in table A4.3 displays the total number of articles extracted per newspaper over the full 26 days analyzed. Looking at the figures, we can observe large variation both within and across countries. It is difficult to say whether this primarily reflects actual differences in the volume of newspapers or whether this is simply an artifact caused by what kind of news material the newspaper databases receive from the different print sources and how they store it. Especially regional newspapers seem to return a large number of articles. This suggests that newspaper databases include all of a regional newspaper's local editions, which usually share substantial parts of their news coverage, causing identical or almost identical articles to appear multiple times in the databases. And while I have taken care to eliminate duplicate articles from my raw data, this was only possible if they were exactly identical. But either way, the large differences between newspapers should not be a great concern, considering that all the indicators compiled from the content analysis data are based on relative and not absolute numbers.

The coding procedure

The relevant information to be extracted from the selected print material by means of the computer-assisted approach was the simple appearance of various concepts in the newspaper articles. Thus, while the ultimate unit of analysis is the newspaper or country, the actual data collection took place on the level of individual newspaper articles. This raw data was then subsequently aggregated, first to the 1'300 newspaper-days (50 newspapers x 26 days) and then to the 50 newspaper-years (50 newspapers x 1 year).[40]

The concepts of interest consist of *politics in general*, *political institutions*, *political parties*, and *malpractice*. All of these four concepts were specified by extensive keyword lists in order to perform comprehensive searches, and most can be further divided into subcategories. The

[40] However, the data is flexible so that instead of just aggregating the articles of one newspaper for the full year, certain periods within a year could be defined as well. This would allow for the comparison of the media's democratic performance across different stages of the political process, such as during, before, after and between elections. Alternatively, the newspapers can also be even further aggregated to the country level.

exact number of keywords varies across concepts and also across languages. An overview thereof as well as some examples can be found in table A4.5 in the appendix.[41]

Keywords referring to *politics in general* were used to identify newspaper articles which relate to political affairs but do not already contain any references to political actors or institutions.

The analysis of *political institutions* revolves around the press coverage of the three constitutional democratic powers, i.e., the legislative, executive and judicial branches, as well as the public administration. While the judiciary and the public administration only comprise one large category each, more fine-grained distinctions were made for the legislative and executive branches. As for the former, I differentiated between the legislative in general and the two chambers of parliament, if applicable. As for the executive, keyword groups representing the government in general, the head of state, the head of government and the cabinet ministers were defined. I classified the most powerful office in a country as the head of government, and the second leading government office as head of state. Hence, the label 'head of government' applies to the Prime Minister in Australia as well the French President even though the latter formally is the head of state. By contrast the French Prime Minister was coded as head of state whereas in Australia, this label refers to Queen Elizabeth II as well as Australia's Governor-General. For all of the four types of *political institutions*, the lists include keywords referring to the organization as a whole as well as the denomination of individual offices within these institutions. Hence, for the legislative branch in English-speaking countries, for example, both the keywords 'parliament' and 'MP' were used. The names of specific office-holders, however, were only considered in the case of the executive branch. With regard to

[41] The full keyword lists are available on request.

this category, the names of the heads of government, the heads of state as well as all cabinet-level ministers in office in 2008 were compiled.[42]

According to the horizontal media function and especially the participatory model of democracy, the media should provide a platform for and balance a variety of different civil society actors and intermediary organizations in their news coverage. However, because of the difficulties of compiling valid keyword lists for all of the different types of interest groups mentioned in chapter 3 (see section 3.4.1, p. 67) for all countries, I only focused on political parties. So one might argue that horizontal function performance assessments on the content level are more closely in line with the minimal requirements of the liberal model of democracy.

As for *political parties*, I defined those parties as relevant which had gained at least 1 percent of all the votes in the previous national election or were represented in the national parliament at any point during the respective legislative period (e.g. by means of representatives switching between or forming new political parties).[43] Since the elections took place in the second half of 2008 in all of the four election year countries, the old compositions of parliament were used as points of reference. Table A4.6 in the appendix lists all the political parties considered in the content analysis. For every party, the keyword list includes the full name as well as – if applicable and available – abbreviations, deviating names of specific party sections[44] and the names of the incumbent party presidents or leaders.

Finally, the keyword lists for *malpractice* were compiled to analyze various forms of misconduct that political actors are associated with in the news. They were classified into five subcategories which might of course overlap or co-occur: 1) corruption, 2) lying, 3) fraud, 4)

[42] The official online services of the respective countries' governments, parliaments and parties as well as Wikipedia provided all information on the relevant politicians.

[43] I relied on information provided by the Social Science Research Center in Berlin, the Inter-Parliamentary Union (IPU; www.ipu.org (08/28/2012)) as well as the official websites of the ten national parliaments.

[44] For example, region-specific names like the Christian Social Union (CSU) in Germany, which only exists in the state of Bavaria but forms a union with the Christian Democratic Union (CDU) on the national level.

scandal and 5) negative coverage in general. The first subcategory refers to acts of corruption and bribery. The second subcategory comprises keywords indicating lying, cheating as well as various other forms of possibly immoral behavior. The third subcategory goes one step further in that it actually denotes illegal acts such as fraud, serious misconduct and criminal behavior. The fourth subcategory is rather small in terms of the number of keywords and simply refers to scandals or incidents deemed scandalous. The fifth subcategory, by contrast, is very broad and includes a large variety of keywords with a negative connotation. These range from words expressing insults to words expressing disgust or outrage.

The keyword lists for *politics in general*, *political institutions* and *malpractice* were obtained in multiple steps. Initially, I compiled a list of English keywords from my general knowledge for each of the different concepts of interest. These original lists were extended by synonyms using WordNet (Fellbaum 1998)[45] and translated into French and German with the help of various online translation dictionaries and tools.[46] Furthermore, country-specific keywords were added to the lists for *political institutions*, especially the legislative and executive branches. More specifically, it was crucial to include the exact names of the respective institutions in the various countries, such as e.g. the 'House of Commons' for the lower house of parliament in the United Kingdom or the 'Bundeskanzlerin' for the head of government in Germany. Country-specific keywords were somewhat less important with regard to the judiciary and the public administration but efforts were made to cover the most important organizations per country with corresponding keywords. No country-specific keywords were required for concepts *politics in general* and *malpractice*.

[45] WordNet is a large lexical database of nouns, verbs, adjectives and adverbs which are grouped into sets of synonyms. These sets are interlinked by means of conceptual-semantic and lexical relations. The result is a network of meaningfully related words, which can be searched to find semantic synonyms.

[46] I employed Leo (http://dict.leo.org), Babelfish (http://de.babelfish.yahoo.com/) and Google Translate (http://translate.google.ch/). Since these services sometimes perform very badly, all results were crosschecked using at least two different translation tools, in order to minimize the risk of translation errors.

Having assembled the keyword lists for all the categories discussed above in the three languages required, they were collapsed by stemming. This means that keywords with a common word stem were summarized to one keyword. Stemmed keywords have the advantage that they find similar words and their various inflections. The stem 'legislat', for instance, matches 'legislative', 'legislating', 'legislator', 'legislature', as well as the respective plural forms.

The stemmed keyword lists constituted the input for the computational procedure, which records the newspaper articles that contain any of the keywords specified. However, when performing a list-based automatic annotation of texts, the problem of false positives often occurs. False positives are keyword hits which do not match the concept that was supposed to be found.[47] To resolve such ambiguities as far as possible, I pretested every keyword extensively and additionally implemented heuristic rules. An example of such a rule is that a politician was only identified if both his/ her first and last name were found within an article (Müller and Wueest 2011a). Another example not referring to actual persons would be the keyword 'court' for the judiciary. Since 'court' has many other meanings, the keyword was modified to '(court OR courts) NOT tennis NOT basketball NOT N.B.A. NOT NBA NOT food court' for the United States in order to exclude any mentions of the word 'court' actually denoting a sports ground. Furthermore, keywords often had to be put into a national context. This means that, for instance, references to a 'Kabinett' in the Austrian press was only counted as hits for the Austrian government if the word 'Oesterreich' appeared in the same article as well. Of course, these additional rules and extensions could not completely eliminate but at least greatly minimize false positives. Thus, it can be expected that the target concepts are captured with sufficient precision. This has also been shown in other studies which applied a similar content analysis approach and conducted reliability tests (Müller and Wueest 2011a: 14).

[47] A good example is the widespread English name 'Brown'. On the one hand, such a frequent name can refer to many other persons than the targeted Mr. or Ms. 'Brown'. On the other hand, 'brown' also indicates a color.

Using the revised keyword lists, I performed one keyword search across all newspaper articles sampled for each country and for each concept (sub)category separately (rows in table A4.5 and for every political party). This finally resulted in a list of articles which comprise any of the keywords assigned to the respective concept or – if applicable – subcategory thereof per country, including information about the articles' titles, dates, lengths and sources, i.e., newspapers they originate from. This raw data was then used to construct the indicators defined to measure the newspapers' compliance with the vertical and the horizontal media function on the content level. These indicators will be discussed in the next section.

4.2.3 Indicators

As already mentioned, the advantage of applying an automated content analysis approach is that a large amount of news material can be processed with fairly little effort once the keyword lists are ready. But the downside is that indicators based on data about the simple occurrence of keywords within newspaper articles inevitably are quite crude. Of course, more differentiated measures would be desirable even though, as discussed in chapter 3, I am more interested in the amount of news coverage about political affairs than its tone or character.

Table 4.2 gives an overview of the nine factors used to assess the vertical and the horizontal media function for democracy in terms of media content. Descriptive statistics of all the indicators can be found in table A4.7 in the appendix. Again, all indicators were scaled in such a way that higher values indicate higher democratic performance. And similarly to the structural level, not all of the variables discussed for the content level in chapter 3 (see the lower halves of tables 3.1 and 3.2) could actually be operationalized. This is especially the case for the variables supposed to measure the degree to which citizens and interest groups have a direct voice in the public sphere by means of direct quotations, interviews and letters to the editor. Moreover and as noted before, the analysis of the balance of intermediary actors in the media is limited to political parties, thus disregarding interest groups (e.g. trade unions and

professional associations) and civil society actors (e.g. NGOs and churches) for pragmatic reasons.

Table 4.2 *Overview of media function indicators – content level*

	Components	**Indicators**
Vertical media function	A. Amount of critical political information	• Share of newspaper articles mentioning politics in general or political institutions relative to all articles • Watchdog 1: high share of articles about the government mentioning malpractice (corruption, fraud, lying or scandals) • Watchdog 2: high share of articles about the parliament mentioning malpractice (corruption, fraud, lying or scandals)
	B. Balance of political information	• Well-balanced coverage of constitutional branches 1: government vs. parliament vs. judiciary vs. public administration • Well-balanced coverage of constitutional branches 2: government vs. parliament
Horizontal media function	Platform for diverse interests	• Equal frequency of mentions of political parties in news media coverage • Proportional frequency of mentions of political parties in news media coverage (according to vote shares) • Share of articles mentioning more than one political party in the same article • Average number of parties mentioned per article

The vertical function

On the content level, the vertical media function revolves around the question of how extensively newspapers provide critical and balanced information about political decision-making processes as well as the democratic institutions involved in it. This was subdivided into two separate components which follow a somewhat different logic (see chapter 3).

A. The amount of critical political information

The first indicator of the first component measures the *share of articles indicating politically relevant news* as a share of all articles. More specifically, for every of the 1’300 newspaper-days I calculated the number of articles which include any keyword for *politics in general* or *political institutions*, i.e., the government (in general, head of government, head of state and ministers), the parliament (in general and both chambers), the judiciary or the public admin-

istration, relative to the total number of articles from the same newspaper-day. These shares were then averaged across all 26 days and thereby aggregated to the newspaper-year level.

With respect to the amount of political news coverage, the vertical function is also concerned with how well mass media fulfill their role as public watchdogs that scrutinize political decision makers. Thus, two further indicators reflect the *share of articles about the government and the parliament as well as their sub-categories which also contain keywords indicating malpractice*. This means that the amount of critical news coverage was assessed separately for those two political institutions which are directly accountable to the people. Thus, as argued in chapter 3, even though all constitutional branches need to be monitored by the media, citizens foremost depend on critical evaluations of their incumbent governments and parliaments. As for *malpractice*, however, only four of the five subcategories were used. This is because the fifth subcategory – negative coverage – simply appeared to be too broad and vague. Hence, malpractice as defined for the two respective indicators only incorporates corruption, lying, fraud and scandal. Again, the calculations were carried out on the level of newspaper-days and then aggregated to newspaper-years by arithmetic means.

It is especially these two 'watchdog' indicators, as they are labeled in table 4.2, which might raise doubts about the validity of the data generated by the content analysis. In other words, it is not entirely clear how accurately they are able to measure what they are supposed to measure, namely the degree to which media bring to light malpractice within political institutions. After all, the fact that two keywords appear in the same newspaper article does not necessarily say much about their relationship. If the Canadian Prime Minister is mentioned in the same news unit as the word 'corruption' this could mean that he was condemning corruption – be it in his own or another country – or announcing anti-corruption measures just as likely as that he was associated with corruption himself. This is a problem of false positives which cannot be solved with the present content analysis approach without having to double-check every *malpractice* keyword hit. However, since this problem should equally apply to the data from

all newspapers and countries, we can at least conclude that this is a systematic error which should therefore not distort the results in a certain way. Moreover, other studies confirm that the approach of connecting different concepts in newspaper articles by the simple co-occurrence of keywords is a good approximation of data that is manually coded for the same purpose (Ruigrok and Van Atteveldt 2007; Wueest et al. 2011).

B. The balance of political information

The second component of the vertical function consists of two indicators which both measure the *degree to which newspapers cover political institutions to equal extents*. While the first compares the relative frequencies with which the three branches of democratic government and the public administration appear in the press, the second only looks at the executive versus the legislative branch. The idea behind the latter is again that the government and the parliament require most attention from the voters since their legitimacy is directly based on public support.

To calculate the balance of political institutions in the news, I applied the "index of qualitative variation (IQV)" used by Woods (2007: 220), which is calculated by the following formula:

$$\mathrm{IQV} = \frac{\left(1 - \sum_{i=1}^{K} P_i^2\right)}{(K-1)/K}$$

P_i = the proportion of observations for institution *i*.
K = the number of institutions.

The values P_i equal the amount of newspaper articles referring to an institution relative to all newspaper articles referring to any of the four (indicator 1) or two political institutions (indicator 2), respectively. This was necessary so that the values of P_i add up to 1. Moreover, for the executive and legislative branch, the numbers of articles with keyword hits were summed up for their respective three subcategories before calculating P_i. To give an example, if on a given day in a given newspaper, 5 articles contained keywords for the government in general, the head of state, the head government and/or the cabinet-level ministers and 10 articles con-

tained keywords for the parliament in general and/or either of its chambers, then the IQV measuring the balance between the executive and legislative branch would yield:

$$IQV_{Exe.\ vs.\ Leg.} = (1- ((5/(5+10))^2 + (10/(5+10))^2)) / ((2-1)/2) = 0.89$$

The IQV ranges from 0 to 1. A value of 1 indicates perfect balance which applies if the institutions are equally frequently mentioned in the news. A value of 0, by contrast, would mean that only one institution is covered at all. Just like the previous indicators, the IQV was computed on the newspaper-day level and then averaged across the 26 days for each newspaper.

The horizontal function

Balance is also the main matter of the horizontal media function. In other words, newspapers are supposed to reflect the different interests within the society, which are represented by the different political parties and their ideologies, and to allow public discourses. As already discussed in chapter 3, what constitutes the right balance between political parties is a normative question. According to the liberal model of democracy, attention should be devoted to political parties proportionally to their electoral strengths. The participatory model, by contrast, would probably plead for an even balance between parties in the press (Ferree et al. 2002: 207f., 230). Both positions can be operationalized and, therefore, two indicators measuring the balance of political parties in the news coverage were calculated.

The first represents the position of the participatory model of democracy and thus reflects the *degree to which parties are equally frequently mentioned in the news*. Just like the balance between democratic institutions, this is calculated by applying the IQV (see above).

In order to measure the liberal model of democracy's proposition of *proportional party representation*, it makes sense to use one of the various disproportionality indices that exist to compare the aggregated gaps between parties' vote shares and their relative frequencies in the news. Probably the most common of such measures is the Gallagher index of disproportionality, named after its creator (Gallagher 1991). The index ranges from 0 to 100, with higher

values indicating higher disproportionality. Thus, in order for the index to have higher values for higher levels of proportionality, the original Gallagher index was reversed by subtracting it from 100. Thus, the calculation was carried out according to the following formula:

$$\text{Proportionality index} = 100 - \sqrt{\frac{\sum_{i=1}^{n}(V_i - P_i)^2}{2}}$$

Vi = the vote share of party *i.*
P_i = the proportion of observations for party *i*.

The vote shares used to compute the reversed Gallagher index were taken from a country's previous national election results, also for countries in election years, as reported by data from the Social Science Research Center Berlin and IPU (see footnote 43). Both of the party balance indicators were implemented on the level of newspaper-days and further aggregated from there by averaging the values across the 26 days.

In addition to measuring the ratio of political parties within newspapers, I was interested in how often newspapers report about different political parties within the same news unit. More specifically, two further indicators assess the share of newspaper articles exhibiting a dialogic structure in the sense that they convey multiple viewpoints within the same article, not just the newspaper as a whole. This resembles the two concepts of internal and external diversity of opinions, which were introduced in the discussion of variables for the structural analysis. But while the concepts there referred to the diversity or balance of opinions on the level of the whole press system (external) versus individual news outlets (internal), they are narrowed down to a much smaller scale here. Whereas the two party balance indicators measure diversity of opinions on the level of the whole newspaper (external), the dialogic structure indicators focus on diversity of opinions within individual newspaper articles (internal). The first of these reflects the *share of all articles with party references which in fact include more than only one political party*. Again, this percentage was calculated on the level of newspaper-days and further aggregated to newspaper-years by taking the average of these percentages. The second indicator for the dialogic structure simply counts the *number of political parties men-*

tioned per article, in those articles where parties are mentioned at all. This is the only measure already created on the level of single articles and then subsequently aggregated to the newspaper-day and newspaper-year level by averaging the respective scores. On the highest level, however, the indicator was additionally weighted, i.e., divided by the number of parties that actually exist in a country to control for the party system. This is necessary because an average number of two parties mentioned per article would of course be very high for the United States but not so much for Switzerland.

4.3 Summary

This chapter presented the research designs applied to analyze the democratic performance of mass media in terms of the vertical and the horizontal function on both the structural and the content level. More specifically, the country samples, periods of investigation, methods of data collection and the operationalization of the theoretical model developed in chapter 3 were presented for both levels of analysis in detail.

On the structural level, media system performance will be evaluated by means of secondary data on the communication infrastructure and the composition of media markets for a broad range of countries and over almost two decades from 1990 to 2008 (see section 4.1). Initially, much more data was collected than discussed in section 4.1.2 (in fact, for about 40 indicators). But after a careful examination of the assembled data, I decided against working with a large variety of parameters with miscellaneous geographic and temporal coverages as well as considerable differences in terms of quality and reliability. Instead, focusing on only few but valid and (more or less) reliable indicators, which are available for a reasonable time series and a sufficiently high number of countries to allow for multivariate analysis, was deemed to be the better approach. Nevertheless, it was not possible to find data for all of the 77 established democracies identified on the basis of existing indices of democracies in section 4.1.1. The structural analysis therefore operates with a subset of 47 democracies worldwide and a

core set of nine indicators, which capture the access to information on the one hand, and the quantitative and qualitative diversity of media channels on the other. Since this core set does not include any indicators for the electronic media sector with respect to the horizontal function, however, a second sample consisting of 24 European countries was defined. This smaller country sample has the advantage that three additional indicators are available which measure quantitative and qualitative media diversity in the television market.

On the content level, a semi-automated content analysis of 50 newspapers on 26 representative days in the year 2008 was conducted to compare the degree to which news coverage fulfills the normative standards of the vertical and horizontal media function across ten different countries (Austria, Australia, Canada, France, Germany, Ireland, New Zealand, Switzerland, Great Britain and the United States). Section 4.2 discussed the sampling and data collection procedures as well the construction of the final media performance measures. Like on the structural level, the evaluation is based on nine indicators on the content level. They reflect the degree to which mass media provide critical and well-balanced information about political institutions on the one hand, and a balanced coverage of political parties on the other.

Because of the very different nature and scopes of the data for the structural and the content level, media performance will be analyzed separately for each of the two levels. Hence, the following chapter 5 will exclusively look at the structural or media system level. Chapter 6 then turns to the content level and examines the democratic performance of mass media with respect to their news coverage.

Chapter 5:
Comparing the democratic performance of media systems

Having derived the role that the media are supposed to play in a democracy according to normative theory and having specified the two respective media functions in the two previous chapters, this chapter proceeds to the empirical analyses. While the content level is covered in chapter 6, chapter 5 entirely focuses on the structural level. In a first step, its aim is to explore how the theoretically derived media system indicators relate to each other and whether this corresponds to the concept of the vertical and the horizontal media function. The main instrument employed to do so is factor analysis. In a second step, how media systems perform across countries with regard to the two functions is studied in more detail. By means of descriptive and cluster analyses, I examine whether different types or patterns of media systems in terms of their democratic performance can be identified. Finally, I test what determinants possibly account for differences in media systems' fulfillment of the vertical and the horizontal function on the structural level.

5.1 The dimensions of structural media performance

As described in chapter 4, multiple indicators were defined in order to measure the vertical and the horizontal media function. All of them are based on theoretical reasoning and are considered to characterize different aspects of the two media functions. So far, it was only hypothesized which indicators belong to which function and it needs to be tested whether this classification holds. On top of this, no explicit assumptions were made with regard to whether and how the indicators of the same function covary. In other words, it was not argued that the indicators of one function necessarily have to be one-dimensional. This might in fact be especially unlikely for the horizontal media function, which was defined to consist of two components in chapter 3. However, if there is evidence that the indicators from the same function do

coexist on a single dimension, this would provide an even stronger argument for my theoretical model.

Hence, it is first of all important to gain a better understanding of the relationships between the indicators and to examine whether they can be grouped according to the theoretical media functions. For this purpose, I conduct exploratory factor analyses, starting with the larger sample of 47 countries and the nine indicators that are available for this sample. The following section then tests how the results change when the number of indicators is increased by three additional items, while the number of cases is reduced to the smaller sample of 24 European countries.

5.1.1 Large country sample

Table 5.1 presents the results of a principal components factor analysis with the nine indicators available for the larger country sample. The table is divided into two sections. The left-hand side represents the results from a factor analysis across the full time series 1990 to 2008. However, instead of using the 893 country-years (47 countries x 19 years), the data was split into four periods by averaging the data across mostly five years (1990-1994; 1995-1999; 2000-2004; 2005-2008). This approach helps to reduce the impact of short-term fluctuations in the data and is also more appropriate in light of the often incomplete time series for some indicators (see chapter 4).[48] It therefore seems reasonable to work with five-year averages instead. Hence, the left-hand side of table 5.1 is based on 188 cases (47 x four five-year periods) and thereby disregards the panel structure of the dataset. But since factor analysis relies on covariance matrices, time dependencies and trends might affect the factor results. And even though this problem should be less serious with the five-year averages compared to single country-years, in order to completely rule it out, the analyses were also conducted separately for every five-year period. The results are actually very consistent with the ones given

[48] Missing years had to be replaced for most indicators. This results in a yearly dataset which purports a level of precision it cannot actually deliver.

in table 5.1.[49] However, presenting and discussing the factor composition for every single period would go beyond the scope of this chapter. Instead, the right-hand section of table 5.1 also shows a factor analysis based on the overall means of the variables across the 19 years in the time series.

Table 5.1 *The latent dimensions of structural media performance (large country sample)*

		5-year average panel			Overall means		
		1	**2**	**3**	**1**	**2**	**3**
Vertical	Daily newspaper circulation per 1'000 people	**.667**	.384	.070	**.804**	.243	.152
	Radio sets per capita	**.840**	.054	-.055	**.910**	-.056	-.023
	TV sets per capita	**.898**	.110	-.039	**.917**	.059	-.048
	Computers in % population	**.907**	.102	.102	**.909**	.241	.065
	Internet users in % population	**.841**	-.015	.117	**.929**	.240	.050
Horizontal	Daily newspaper titles per 1 million people	.282	**.810**	.184	.381	**.747**	.245
	Newspaper import in % GDP	-.038	**.841**	-.122	.028	**.887**	-.161
	Ideological balance of the press system	.168	.089	**.657**	.215	-.004	**.591**
	Circulation share of neutral newspapers	-.119	-.074	**.827**	-.195	.002	**.814**
Eigenvalues		3.61	1.55	1.20	4.23	1.53	1.13
Explained variance in %		40.12	17.23	13.32	47.04	16.95	12.57
Number of cases		188			47		

Notes: rotated factor loadings using principal component analysis and Varimax rotation; factors with Eigenvalue > 1 were extracted; explained total variance: 74.62% (panel) and 76.56% (overall means); bold: loadings ≥ .400 or ≤ -.400; grey: highest loading per item.

Most importantly, the results are almost identical across the two different types of datasets, the five-year average panel and the total averages. In both cases three factors have been extracted from the data. Hence, we can already see that the indicators measuring the democratic performance of media systems do not covary according to just two latent dimensions as one might assume from the theoretical framework. A closer look, however, reveals that the three dimensions are highly plausible in light of the theoretical model.

In both sections of the table, the first factor unambiguously represents the vertical media function. All of the indicators which were discussed with regard to this function in chapter 4 load

[49] In addition separate factor analyses were conducted for every single year as well as for the whole 893 country-years. Three latent dimensions were extracted in every instance. Thus, the results can be considered as very robust.

onto this single dimension. Especially the four indicators capturing the access to electronic media within the population are very strongly related to the latent factor. For this reason, it is not very surprising that the only press indicator, measuring the penetration of newspapers in the society, exhibits the lowest though still reasonably high factor loading (0.667 and 0.804, respectively). Moreover, none of the indicators of the vertical function load onto the other two factors.

Hence, the second and the third factor are purely determined by indicators of the horizontal function. This means that, contrary to the vertical function, the horizontal function is not one- but two-dimensional. Nevertheless, the two factors show a distinct pattern that is fully in line with the theoretical conceptualization developed in chapter 3. Each of them clearly represents one component of the horizontal media function, i.e., either quantitative or qualitative media diversity. Factor 2 is only characterized by the two indicators for quantitative diversity, namely the number of newspaper titles per capita and newspaper import as a share of a country's GDP. Factor 3, by contrast, is exclusively defined by the indicators for qualitative diversity or – in other words – diversity of opinions. Both the ideological balance of the press system and the share of neutral newspapers' circulation show high factor loadings here. In sum, although three instead of two latent dimensions were extracted from the data, the resulting factor structure fits the theoretical model very well.

5.1.2 Small country sample

In a next step, the analysis is restricted to fewer countries, which allows taking into account more indicators. More precisely, three indicators are added to the analysis so that the horizontal function does not only consist of press but also broadcast indicators. Accordingly, table 5.2 presents the results of a principal components factor analysis on the basis of the small country sample and twelve indicators. Analogous to table 5.1, the left-hand side of table 5.2 contains the factor solution of an analysis across all 19 years, divided into five-year averages. Conse-

quently, it is based on 96 cases (24 countries x four five-year periods).[50] As mentioned before, ignoring the panel structure of the dataset when performing factor analyses might lead to biased results. The right-hand side therefore again shows the factor solution and loadings from an analysis of the overall averages across the 19 years.[51] This, however, raises some concern regarding the sample size, since conducting factor analysis with twelve items on the basis of only 24 cases might be problematic.

Table 5.2 *The latent dimensions of structural media performance (small country sample)*

		5-year average panel				**Overall means**			
		1	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Vertical	Daily newspaper circulation per 1'000 people	**.751**	**.445**	-.131	-.223	**.930**	.213	-.035	.034
	Radio sets per capita	**.823**	.119	-.079	-.080	**.876**	-.098	-.008	.038
	TV sets per capita	**.875**	-.163	-.013	.114	**.852**	-.290	-.038	-.035
	Computers in % population	**.838**	.088	.336	.209	**.874**	.153	.354	-.018
	Internet users in % population	**.756**	-.022	.249	.375	**.925**	.149	.203	.002
Horizontal	Daily newspaper titles per 1 million people	.247	**.857**	-.093	.052	**.428**	**.731**	-.120	.214
	Newspaper import in % GDP	-.348	**.590**	**.562**	-.060	-.275	**.680**	**.490**	-.165
	TV stations received	**.429**	-.151	**.636**	.266	.252	-.136	**.775**	.192
	% TV HH receiving foreign TV news	.027	-.031	**.852**	-.080	.027	-.007	**.903**	.003
	Ideological balance of the press system	.122	.063	-.037	**.662**	.179	-.072	.123	**.846**
	Neutral newspapers' circulation share	-.040	**.584**	-.033	**.442**	.008	**.720**	-.130	.087
	Strength of the public broadcast sector	-.015	-.064	-.073	**-.862**	.230	-.295	-.008	**-.719**
Eigenvalues		3.66	1.70	1.66	1.71	4.39	1.81	1.87	1.35
Explained variance in %		30.54	14.19	13.84	14.28	36.54	15.10	15.59	11.27
Number of cases		96				24			

Notes: rotated factor loadings using principal component analysis and Varimax rotation; factors with Eigenvalue > 1 were extracted; explained total variance: 72.84% (panel) and 78.51% (overall means); bold: loadings ≥ .400 or ≤ -.400; grey: highest loading per item.

As table 5.2 illustrates, adding more indicators to the analysis also leads to a higher number of factors. Instead of the previous three latent dimensions, four factors are now identified, i.e., have Eigenvalues higher than 1 in both the panel and the purely cross-sectional analysis. The

[50] An analysis across all individual 456 country-years (24 countries x 19 years) yields almost the same results.

[51] Another approach to cope with this problem would be to analyze each period separately. In this scenario, four factors emerge in most cases as well. The only exception to this pattern is the most recent period 2005 to 2008, where five latent dimensions are extracted on the basis of their Eigenvalues.

factor loadings, however, reveal that basically the same dimensions as in table 5.1 are still evident. They are simply complemented by an additional factor which is mainly characterized by two of the three new indicators. Moreover, like in table 5.1, the two factor solutions from the different datasets (five-year average panel vs. overall means) are very similar in table 5.2.

Hence, the first factors in both the left- and the right-hand section of table 5.2 still clearly represent the vertical media function. The respective five indicators correlate strongly and, with one exception in the five-year average panel version, do not load onto any other dimension. The exception is the first item, which measures the circulation of the daily press per 1'000 inhabitants. This indicator also loads onto the second factor in the left section of the table, albeit only rather weakly so (0.445). Furthermore, one indicator of the horizontal function loads onto the first dimension in each of the two factor solutions. While this concerns one of the three new items, the number of television channels received, in the panel data version it applies to the number of daily newspapers in the overall means version. However, in both cases the factor loadings are below 0.5, and the two indicators are much more important for other latent dimensions. Finally, the obvious association between the relative circulation and the relative number of daily newspapers is not very surprising, given that a large relative press circulation can result from either a few but very large newspapers[52] or a high number of print outlets.

Again very much in line with the analyses of the large country sample, factors 2 in the left- and right-hand sections of table 5.2 capture the quantitative diversity of the press system. The two respective indicators – number of newspapers and newspaper import – exhibit their highest factor loadings here. Yet, internal press diversity, i.e., the share of politically independent newspapers' circulation, also loads most strongly onto this dimension in both versions of the small country sample.

[52] Such as in Japan, which has had the largest circulated newspapers in the world for years. The "Yomiuri Shimbun", for example, had a daily circulation of about 14 million copies in 2005 (WAN 2006).

The third factors in table 5.2 are the parallels of factors 2 in terms of the broadcast media. They are mainly characterized by the two new indicators added to the analysis which are supposed to measure the quantitative diversity of the television sector. So interestingly, quantitative press and TV diversity do not form a joint latent dimension but rather follow different patterns. This means that they may, but do not necessarily have to coexist within the same media system. However, quantitative press and television diversity do not seem to be entirely independent of each other because newspaper import in percent GDP also loads onto factors 3 (0.562 and 0.490, respectively) even though not as highly as on factors 2. The reason for this is that newspaper import is somewhat related to the share of TV households receiving foreign news channels (average of BBC World News, CNN, Euronews, TV5 Monde, Sky News and France 24). Hence, it appears that some media systems are generally more open to foreign sources of information, both in terms of print and broadcast media.

The fourth factors, finally, are concerned with qualitative media diversity. Contrary to the large country sample (see table 5.1), only the indicator for external diversity of opinions within the print sector, i.e., the ideological balance within the press system, loads exclusively and quite strongly onto this last latent dimension in both data versions. Internal opinion diversity, by contrast, is only weakly related to factor 4 in the left-hand section of table 5.2. In addition, the only other item with high loadings with regard to factors 4 is one of the three new indicators, namely the proxy measure for the internal diversity of opinions within the electronic media sector, which assesses the strength and independence of the public broadcast system. More specifically, it indicates the share of public channels relative to all domestic television channels, weighted by the market share and the political independence of public broadcasters. The factor loadings of this item, however, are negative. Thus, an inverse relationship between qualitative press and TV diversity can be observed. This configuration reveals an interesting trade-off between the two concepts. Apparently, media systems with dominant and independent public broadcasting tend to have a politically more distorted press system and vice versa.

This is plausible considering that a strong public service media sector is traditionally found in countries where the major newspapers have clear political orientations, which date back to their emergence from the party press. A case in point is the United Kingdom where the BBC, the paragon of public broadcasting, is leading the television market and pitted against a highly politicized print landscape. In Great Britain, however, it is not only the traditional political alignments of newspapers but also the entry and consolidation of Rupert Murdoch's News International in the British press market, which has led to a shift to the right and thus a deterioration of external opinion diversity (McQuail 1992: 161; Street 2011).

In sum, comparing the results in table 5.2 to the factor solutions with the larger country sample but fewer indicators (see table 5.1), some conclusions can be drawn. First, the same five indicators were used for the vertical function and they still constitute a single, strong and mostly exclusive latent dimension. Second, the horizontal function is characterized by three instead of just two factors when the analysis is conducted for the small country sample and seven instead of four indicators for the horizontal function. However, these three factors still distinguish the function's components, i.e., quantitative and qualitative media diversity, even though one of the indicators for qualitative press diversity is associated with quantitative press diversity in the factor analysis with the reduced country sample. In addition, a distinction between the press and the electronic media emerges. Obviously, both types of media are important for the horizontal function but they do not necessarily coexist. Instead, their democratic performances are rather independent from or even in conflict with one another, as observed with respect to qualitative media diversity.

5.1.3 Summary

The factor analyses were useful to analyze the dimensionality of the structural data and to see whether the indicators are jointly determined by meaningful latent constructs. Indeed, it was found that the manifest indicators form latent variables more or less in line with my theoreti-

cal model of media performance. Thus, while the vertical media function is clearly mirrored in the covariance structure of the data as a one-dimensional concept in both country samples, the horizontal function is divided into two dimensions, corresponding to its components quantitative and qualitative media diversity in the large sample with 47 countries. In the case of the smaller sample with 24 countries and more indicators, a further distinction according to the type of medium, i.e. the print vs. the electronic media sector, is evident. Therefore, the horizontal function consists of two instead of just one dimension for quantitative media diversity in this case. Furthermore, the comparison of the results for the five-year time series and the overall mean values suggest that the factor solutions are quite robust and do not seem to be strongly affected by time effects, neither in the case of the large nor the small country sample.

5.2 Finding country patterns of structural media performance

While the factor analyses were performed to find patterns among the nine or twelve *indicators*, the resulting factors will now be used to study patterns among *countries*. As the previous analyses have shown, the two media functions and their indicators denote different aspects of media systems' democratic performance. I assume that countries differ in the degrees to which their media systems fulfill the requirements of the two functions. In other words, some countries might simply perform better than others in general. But at the same time, country differences are also expected to reflect different patterns or types of structural media performance. Thus, in cross-national comparison, some countries might perform better on specific aspects only and worse on others. The results of the factor analyses can actually be taken as a first indication for this. If every country always scored equally high or low on all variables, the factor analyses would not have produced different but just one dimension.

The examination of country patterns proceeds in two steps. First, a descriptive analysis will provide an overview of differences in structural performance across countries. Second, I will try to identify distinct patterns of media systems or rather different groups of countries with

specific configurations of the two media functions. For this purpose, cluster analyses on the basis of the factor scores as derived from the latent dimensions described in section 5.1 will be conducted.

5.2.1 Cross-national differences in structural media performance

Table 5.3 presents the scores of the three factors in the right-hand section of table 5.1 (large country sample) and the four factors in the right-hand section of table 5.2 (small country sample) for each country. Thus, for the sake of simplicity, only the scores from the factor analyses of the overall mean values are shown. Moreover, they are arranged by media function or component, so that the corresponding scores of the two country samples can be directly compared. The countries are sorted in descending order by the values in the columns entitled I, which stand for the large country sample version.

As for the vertical media function shown in the first three columns, the United States rank highest, followed with quite some distance by the United Kingdom, Finland, Denmark, and Japan. Further Anglo-Saxon and Northern European countries like Sweden, Australia, Norway, the Netherlands, Iceland and Canada also perform very well with scale points higher than or almost 1. At the bottom of the list, by contrast, we find Honduras, Panama, Paraguay, Mongolia and India. Clearly, a distinction can be drawn between economically highly developed countries on the positive side and less wealthy countries on the negative side of the scale.

A further observation is that despite somewhat different factor loadings, the factor scores estimated on the basis of the 24-country sample (column II) do not differ substantially from the corresponding scores in column I. Exceptions are the values for Greece and – to a lesser degree – France, Italy, Belgium, Ireland and Portugal. All of these countries perform worse when compared only to the other 18 European countries of the small sample.

Table 5.3 *Country scores for the latent dimensions of structural media performance*

VERTICAL FUNCTION			**HORIZONTAL FUNCTION**						
			Quantitative diversity				***Qualitative diversity***		
	I	*II*		*I*	*II (press)*	*II (TV)*		*I*	*II*
United States	2.152	-	*Malta*	3.147	-	-	*Israel*	2.423	-
UK	1.672	1.515	*Cyprus*	2.968	2.831	0.298	*Paraguay*	1.738	-
Finland	1.536	1.696	*Luxembourg*	2.306	-	-	*Norway*	1.652	0.367
Denmark	1.509	1.541	*Switzerland*	1.934	1.165	1.766	*Finland*	1.641	0.838
Japan	1.475	-	*Norway*	1.251	1.667	-1.051	*India*	1.246	-
Sweden	1.455	1.404	*New Zealand*	0.957	-	-	*Mexico*	1.179	-
Australia	1.345	-	*Iceland*	0.936	-	-	*France*	1.003	1.587
Norway	1.268	1.607	*Belgium*	0.721	0.076	1.703	*United States*	0.968	-
Netherlands	1.152	0.790	*Ireland*	0.611	0.213	1.211	*Cyprus*	0.781	-0.188
Iceland	1.032	-	*Sweden*	0.435	-0.047	-0.832	*Switzerland*	0.753	0.873
Canada	0.975	-	*Slovenia*	0.428	1.071	0.182	*Slovenia*	0.739	-0.115
Switzerland	0.960	0.949	*Canada*	0.425	-	-	*Iceland*	0.719	-
Germany	0.659	0.497	*Austria*	0.366	0.011	1.054	*South Korea*	0.611	-
South Korea	0.651	-	*Panama*	0.297	-	-	*Turkey*	0.587	-
Luxembourg	0.558	-	*Slovakia*	0.254	0.663	-0.713	*Hungary*	0.574	0.292
France	0.506	0.081	*Portugal*	0.200	0.256	0.141	*Slovakia*	0.546	0.236
Austria	0.496	0.364	*Czech Rep.*	0.092	0.195	-1.323	*Germany*	0.493	-0.051
New Zealand	0.471	-	*Finland*	0.030	0.281	-0.499	*Bulgaria*	0.305	0.653
Italy	0.165	-0.441	*Croatia*	-0.130	-0.836	-0.259	*Austria*	0.264	-1.114
Belgium	0.072	-0.342	*Hungary*	-0.227	0.196	-1.006	*Portugal*	0.131	-0.113
Ireland	0.016	-0.487	*Bulgaria*	-0.227	-0.070	-1.764	*Brazil*	0.099	-
Czech Rep.	-0.063	-0.285	*Costa Rica*	-0.256	-	-	*Sweden*	0.052	0.763
Spain	-0.173	-0.520	*Denmark*	-0.298	-0.073	-0.833	*Mongolia*	-0.100	-
Greece	-0.355	-1.070	*Peru*	-0.302	-	-	*Denmark*	-0.141	-1.075
Slovakia	-0.363	-0.700	*Poland*	-0.303	-0.582	-0.548	*Panama*	-0.152	-
Hungary	-0.375	-0.686	*Chile*	-0.342	-	-	*Poland*	-0.198	-0.892
Uruguay	-0.454	-	*Spain*	-0.363	-1.015	-0.371	*Costa Rica*	-0.279	-
Slovenia	-0.474	-0.824	*Germany*	-0.376	-0.544	1.599	*Greece*	-0.290	2.063
Malta	-0.475	-	*Mongolia*	-0.382	-	-	*Czech Rep.*	-0.322	-0.572
Israel	-0.487	-	*Mexico*	-0.414	-	-	*Italy*	-0.337	0.981
Poland	-0.520	-0.847	*Honduras*	-0.526	-	-	*Spain*	-0.370	0.169
Bulgaria	-0.543	-0.873	*Netherlands*	-0.602	-0.728	1.311	*Netherlands*	-0.425	-0.092
Croatia	-0.601	-0.972	*Greece*	-0.605	-1.482	0.233	*Belgium*	-0.440	0.373
Chile	-0.704	-	*Brazil*	-0.645	-	-	*New Zealand*	-0.483	-
Portugal	-0.784	-1.253	*Paraguay*	-0.646	-	-	*Honduras*	-0.497	-
Colombia	-0.799	-	*India*	-0.655	-	-	*Japan*	-0.549	-
Brazil	-0.805	-	*Australia*	-0.673	-	-	*Luxembourg*	-0.589	-
Turkey	-0.882	-	*Uruguay*	-0.704	-	-	*Uruguay*	-0.720	-
Peru	-0.967	-	*South Korea*	-0.731	-	-	*Canada*	-0.753	-
Costa Rica	-0.977	-	*Israel*	-0.780	-	-	*Colombia*	-0.910	-
Cyprus	-1.058	-1.145	*Turkey*	-0.855	-	-	*Malta*	-1.090	-
Mexico	-1.067	-	*France*	-0.866	-0.591	-0.109	*UK*	-1.129	-1.477
Honduras	-1.230	-	*Colombia*	-0.868	-	-	*Ireland*	-1.208	-1.295
Panama	-1.332	-	*Italy*	-0.948	-1.321	0.276	*Croatia*	-1.483	-2.213
Paraguay	-1.496	-	*UK*	-1.127	-1.338	-0.463	*Peru*	-1.560	-
Mongolia	-1.558	-	*Japan*	-1.174	-	-	*Australia*	-1.948	-
India	-1.583	-	*United States*	-1.335	-	-	*Chile*	-2.531	-

Notes: scores are based on factor analyses of overall mean values (see right sections of tables 5.1 and 5.2); I = large country sample versions; II = small country sample versions.

Moving on to the horizontal function and its first component in table 5.3, we can observe that mainly small European countries are leading the field in terms of quantitative diversity. Thus, the five top-scoring countries in column I are Malta, Cyprus, Luxembourg, Switzerland and Norway, although the difference in scale points between Malta and Norway is already considerable (about 1.9 points). Furthermore, except for Denmark, Scandinavian countries seem to perform rather well with regard to quantitative diversity too. The five worst performing cases according to the factor analysis are Colombia, Italy, the UK, Japan, and the United States. But only the latter three score below -1, i.e., more than one standard deviation lower than the average of all countries. Some of the negative country scores might be puzzling at first sight. In light of the fact that the press landscapes in Denmark, Germany, the Netherlands and possibly also the United States are usually considered rather pluralistic, one might have assumed higher and positive values for these cases. It seems, however, that this is weakened by a lower degree of newspaper import in these countries.

Again, the scores for quantitative press diversity from the smaller country sample (column II (press)) do not deviate greatly from those of the large country sample. Nevertheless, some substantial shifts can be observed. Thus, whereas Slovenia's value increases remarkably, Switzerland, Belgium, Croatia, Spain and Greece score considerably lower. These changes are possibly caused by the indicator measuring the share of politically neutral newspapers, which is related to the quantitative press diversity factor in the analysis of the small country set and which does not exhibit the best values for the latter five countries.

Some of the countries performing quite well with regard to press diversity also do so in terms of quantitative television diversity (column II (TV)). This for example applies to Switzerland, Belgium or Ireland. Others score more or less equally poorly for both types of quantitative media diversity, such as Bulgaria, Denmark or Poland. In some cases, however, the two types also seem to compensate for each other since several countries are found on different ends of the respective scales. This is especially evident for Cyprus, Norway, Slovenia or Slovakia,

where press diversity prevails, as well as Germany or the Netherlands, where press diversity is outweighed by television diversity.

Finally, with respect to qualitative media diversity, the following five countries have the highest factor scores in column I: Israel, Paraguay, Norway, Finland and India. Moreover, Mexico and France also reach values above 1. The high ratings of Israel, India, Paraguay and Mexico might come as a surprise. However, in the former two cases, the data really suggest that the major dailies within these countries do not have clear political ties and/or that the smaller newspapers balance each other out (as in Israel). As for Paraguay and Mexico, however, the high scores are somewhat of an artifact caused by comparatively little information concerning the politicization of the two press systems. The five lowest-ranked countries in terms of qualitative diversity, by contrast, are Ireland, Croatia, Peru, Australia and Chile. In addition, Malta and the United Kingdom also score slightly below -1.

Compared to column I, the values for qualitative media diversity in column II are quite different. This is because in the version calculated for the small country sample, internal opinion diversity of the press system does not load onto this latent dimension anymore. Instead, it is composed of external opinion diversity and an additional indicator for diversity in the broadcast sector. It is important to remember, however, that its factor loading was negative. The factor therefore showed a trade-off between the dominance and independence of the public service broadcast sector and the balance of ideologies represented within the press system. Thus, high factor scores indicate high qualitative diversity within the press but not the broadcast system, whereas low scores suggest the opposite. In that sense, the scale in column II is not really linear and values around 0, i.e., close to the average, might be regarded as optimum. This will have to be kept in mind in later analyses.

In this extended or alternative conceptualization of qualitative media diversity, Finland still performs quite well. But it is now topped by France, Switzerland, Greece and Italy, which all

exhibit considerable positive shifts compared to column I. On the one hand, this is due to the fact that press diversity is just measured by external opinion diversity in the factor analysis based on the small country sample and on mean values (see right-hand section of table 5.2). All of the countries mentioned are stronger with regard to external than internal diversity, which therefore causes them to move up the scale. On the other hand, low values on the public broadcast indicator, particularly due to its weighting by market share and political independence, is responsible for some of the positive shifts, especially in the case of France, Greece and Italy. This is of course somewhat misleading and suggests that high scores on this factor have to put into perspective.

Most other countries have substantially lower degrees of qualitative diversity according to column II than according to column I. For example, the values of Norway, Cyprus and Austria drop by about one scale point. In the case of Cyprus, this is mostly caused by a comparatively poor performance of external press pluralism, which now receives more weight. Austria's and Norway's setbacks, by contrast, are purely related to the strength of their public broadcast sectors. Similarly, while the United Kingdom, Ireland and Croatia are found at the bottom of the list in both columns I and II, their scores are even 'worse' in column II due to the strong dominance of public broadcasting in these countries.

Overall, the discussion of the factor scores for each media function provided interesting insights. However, it did not give a comprehensive picture of different patterns of structural media performance. In order to do so, how media systems vary in their fulfillment of both the vertical and horizontal media function must be examined simultaneously. This is the subject of the next section.

5.2.2 Patterns of structural media performance

A useful tool to study such patterns of structural media performance is cluster analysis. This procedure groups countries into different classes according to their similarities on a set of

variables of interest. Hence, I performed hierarchical cluster analysis to classify countries on the basis of the scores derived from the factors in tables 5.1 and 5.2.[53]

In a first step, the cluster analyses were conducted using the factor scores based on the mean values of the indicators across all years 1990 to 2008. The results should provide general insight into whether the countries can in fact be assigned to different types of media systems with regard to how well they comply with the vertical and the horizontal media function. In a subsequent step, cluster analyses were also conducted on the basis of the panel data, divided into five-year averages, in order to see how media systems and country patterns change over time. However, these analyses indicate that the country classifications are very stable and do not vary greatly over the years for most countries under study. The panel data analyses will therefore not be discussed, but their results are presented in tables A5.1 and A5.2 in the appendix.

The findings of the cluster analysis for the mean value factors of the large country sample are shown below (see table 5.4). A respective scree test suggests a five-cluster solution. For each of these five clusters, the table displays the average score for each factor as well as the number and the names of the countries it is composed of. Thanks to the standardized factor scores, the clusters can be easily interpreted and compared. For each item, a score above 0 means that the countries belonging to the respective cluster on average perform higher on this item than all other countries (since the average across all countries is 0). Negative scores obviously imply the opposite.

[53] I used the Ward linkage function and the squared Euclidean distance measure as suggested by Backhaus et al. (2000: 366-368). In order to find out how many classes should be distinguished, I looked at scree plots of the distance coefficients. However, even when these are rather clear-cut, i.e. a distinct 'elbow' can be identified, various cluster solutions were tested and compared. The results presented equal the most reasonable solution based on both the scree plots and theoretical plausibility.

Table 5.4 *Characteristics and composition of the large country sample clusters (overall means factors)*

	Cluster				
	1	**2**	**3**	**4**	**5**
Vertical	**1.029**	**1.369**	-0.325	-1.158	-0.552
Horizontal – quantitative	**0.134**	-0.431	**2.807**	-0.624	-0.172
Horizontal – qualitative	**0.900**	-0.699	-0.299	**1.646**	-0.371
Number of countries	*9*	*7*	*3*	*4*	*24*
Cluster composition	Austria, Finland, France, Germany, Iceland, Norway, South Korea, Switzerland, United States	Australia, Canada, Denmark, Japan, Netherlands, Sweden, UK	Cyprus, Luxembourg, Malta	India, Israel, Mexico, Paraguay	Belgium, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Croatia, Czech Rep., Greece, Honduras, Hungary, Ireland, Italy, Mongolia, New Zealand, Panama, Peru, Poland, Portugal, Slovakia, Slovenia, Spain, Turkey, Uruguay

Notes: cluster analysis of the factor scores based on the analysis of the indicator values from the large country sample, averaged across all years (see right section of table 5.1); figures: average factor scores per cluster; bold figures: score > 0; grey cells: highest score per item.

First of all, it is interesting to see that there is no group of media systems in which both democratic functions are fulfilled to very high degrees. It rather seems to be the case that only one function at a time can be maximized. Accordingly, while clusters 2 to 4 each show peak values for one of the three factors but below average scores for the others, cluster 1 scores moderately high with regard to both the vertical and the horizontal function.

Thus, none of the three items has the highest average in the first cluster and the value for quantitative diversity is only slightly larger than 0. But since this is the only cluster with above average scores on all three factors, the nine media systems within this class can be attributed the best overall democratic performance compared to the other 38 cases. These nine cases are Austria, Finland, France, Germany, Iceland, Norway, South Korea, Switzerland and the United States. With the exception of South Korea, all of them are old democracies and primarily from Central and Northern Europe. While the rather high level of the vertical func-

tion is mostly driven by the Nordic cases and especially the United States, the moderately high level of the horizontal function is probably owed to the seven European cases. They are known for a lively and pluralistic press, either because of their federalist structure (Austria, Switzerland) or high press subsidies (Finland, Norway).

Cluster 2 is composed of Australia, Canada, Denmark, Japan, the Netherlands, Sweden and the United Kingdom. As observed before, all of these perform exceptionally well with regard to the vertical media function, which most likely points to the broad diffusion of information and communications technology (ICT) in these highly industrialized countries.

Three very small European states constitute the third cluster, which excels in terms of quantitative media diversity: Cyprus, Luxembourg and Malta. As already discussed in the previous section, this is mainly an effect of their particularly high newspaper import, even though they exhibit a high number of newspapers per capita as well.

Cluster 4 is characterized by a high qualitative diversity, and it consists of India, Israel, Mexico and Paraguay. These somewhat counterintuitive associations have already been observed and discussed with respect to table 5.3. To recapitulate, the diversity of opinions in the press of India and Israel really seems to be high, possibly because the large newspapers in these comparatively young democracies did not emerge from the party press as traditionally the case in older democracies. As for Mexico and Paraguay, however, their high scores for qualitative diversity are somewhat of a data artifact.

The fifth cluster, finally, is very large and combines most of the younger democracies in the sample from all over the world, i.e., Eastern and Southern Europe as well as Latin America and Asia. Apparently, the media systems in all of these countries do not live up to the democratic standards as defined by the mean performance across the full sample, because all three items have mean values that are smaller than 0. It might be noted, however, that with a value of -0.172, cluster 5 does not score very far below average at least with respect to quantitative

media diversity. This is probably due to the somewhat surprising fact that we also find Belgium, Ireland and New Zealand within this cluster.

The cluster analysis with the large country sample produced rather rough and somewhat inconclusive distinctions, especially regarding cluster 5. Hence, it will be interesting to see whether more subtle differences between the countries' media systems become visible when the cluster analysis is repeated with the overall means factors which were estimated on the basis of the small 24-country sample and which included more indicators. Table 5.5 displays the respective results. Interestingly, a four-cluster solution seemed most appropriate in this case. Note that the values cannot necessarily be compared to the ones in table 5.4 because the benchmarks are different. The value 0 in table 5.5 does not have the same meaning as a 0 in table 5.4.

Table 5.5 *Characteristics and composition of the small country sample clusters (overall means factors)*

	Cluster			
	1	**2**	**3**	**4**
Vertical	**0.295**	**1.553**	-0.488	-0.843
Horizontal – quantitative press	**0.032**	**0.098**	-1.102	**0.414**
Horizontal – quantitative TV	**1.441**	-0.736	**0.007**	-0.555
Horizontal – qualitative	-0.217	-0.117	**1.200**	-0.323
Number of countries	*6*	*5*	*4*	*9*
Cluster composition	Austria, Belgium, Germany, Ireland, Netherlands, Switzerland	Denmark, Finland, Norway, Sweden, UK	France, Greece, Italy, Spain	Bulgaria, Croatia, Cyprus, Czech Rep., Hungary, Poland, Portugal, Slovakia, Slovenia

Notes: cluster analysis of the factor scores based on the analysis of the indicator values from the small country sample, averaged across all years (see right section of table 5.2); figures: average factor scores per cluster; bold figures: score > 0; grey cells: highest score per item.

Nevertheless, some similarities between the two different cluster analyses can be observed. Like in the large 47-country sample solution, the peak values for the vertical media function and the horizontal function components are found in different clusters in table 5.5. Hence,

different country groups seem to prioritize different aspects of structural media performance. Additionally, the country compositions reveal that when the focus only rests on Europe, which is the case for the small country sample in this study, quite distinct regional patterns become visible.

The first group, which includes the six Central and Western European countries Austria, Belgium, Germany, Ireland, the Netherlands and Switzerland, distinguishes itself by the highest level of quantitative diversity in the broadcast sector compared to all other countries. Given that it scores above average with regard to the vertical media function and quantitative press diversity as well, this group of countries might be attributed the best overall structural media performance. It also somewhat reminds us of the similar cluster 1 in the large country analysis, to which Austria, Germany and Switzerland belonged too. Yet, contrary to cluster 1 in table 5.4, cluster 1 in table 5.5 exhibits a negative average value in terms of qualitative diversity, the second component of the horizontal media function (-0.217). This indicates that in the trade-off between external pluralism in the press sector and the strength of public broadcasting, the latter outweighs the former. But since the respective value is not far below 0 we could conclude that both indicators reach rather moderate levels in the six countries from cluster 1. This, as discussed above, might actually be preferable to having extreme values on both indicators but on opposite ends. However, a closer inspection reveals that the centrist figure for qualitative media diversity in cluster 1 is more the product of a large variation of factor scores among the six countries from highly negative to highly positive than of balanced scores for all of them. Clearly, the six countries do not cluster together because of their similarity on this particular dimension of media performance. On that note, it might also be mentioned that the rather low mean value for quantitative press diversity in cluster 1 is somewhat misleading for Switzerland and the Netherlands, which score at the opposite extremes with regard to this dimension (1.165 and -0.728, respectively; see table 5.3).

Cluster 2 is composed of all the Scandinavian countries in the sample and the United Kingdom. It shares many similarities with cluster 2 from table 5.4 and also includes three countries which were already present there (Denmark, Sweden and the United Kingdom). Accordingly, the respective five media systems significantly outperform the 19 countries not belonging to this group in terms of the vertical media function. The horizontal function, by contrast, seems to be insufficiently developed in cluster 2 even though a positive level can at least be observed with respect to the quantitative press diversity component. But its rather small value might seem puzzling given that the Nordic countries are known for a diverse press and high newspaper readership. However, on the one hand, quantitative press diversity is not only determined by the relative number of daily newspapers, which is actually high in these countries, but also newspaper import and the neutrality of the press. Apparently, these indicators are relatively deficient in the Nordic region, especially Denmark and Sweden. On the other hand, the UK is responsible for a lower average score for quantitative press diversity in this cluster. Finally, despite its negative sign, the score for the fourth dimension is in fact not much below 0 (-0.117). However, much like in cluster 1, this does not mean that cluster 2 achieves an equilibrium between the conflictive indicators measuring qualitative media diversity. Instead, it is more a reflection of the fact that the five countries in cluster 2 are spread across the whole scale of the second component of the horizontal media function (see table 5.3). So again, this dimension was not decisive in grouping countries into cluster 2.

The very high scores for qualitative media diversity in cluster 3, by contrast, can be interpreted in a straightforward way. They illustrate that the four Southern European media systems in this group exhibit a good balance between newspapers with different political orientations but have a fairly weak and dependent public broadcast system. This combination – as already mentioned – leads to high values on the factor for qualitative diversity of the small country sample. As for the other factors of media performance, France, Greece, Italy and Spain feature more or less serious deficiencies, but they at least achieve a slightly above average level

of quantitative television diversity. Considering its profile, cluster 3 resembles cluster 4 in the large country sample analysis even though none of the four countries were classified into cluster 4 in table 5.4.

The last cluster in table 5.5 might also be characterized by a generally rather poor structural media performance, especially compared to the countries from cluster 1 and 2. Hence, it is not surprising that the young democracies from Eastern Europe within the small country sample all belong to this group. Having had totalitarian regimes until only a little more than 20 years ago, these media systems did not have enough time to develop as democratically desirable structures as older democracies. Similarly, Cyprus and Portugal are found in cluster 4 as well. Probably due to the fact that their democratic inception also took place in the more recent history, these two countries seem to lag behind the level of structural media performance in Western Europe too. However, cluster 4 actually shows the highest score for quantitative diversity within the press system. This is particularly owed to Cyprus, which was already identified to have a high quantitative press diversity above, due to its relatively large number of dailies and comparatively high newspaper import. In this sense, the fourth cluster might be considered a combination of clusters 3 and 5 from table 5.4. Slovenia and Slovakia also reach high degrees of quantitative press diversity, but mainly because of the high share of politically neutral newspapers in these countries, i.e., internal opinion diversity.[54]

5.2.3 Summary

To briefly summarize the main findings of this section, the results of the descriptive and cluster analyses have shown that there is no group of countries with an exceptional performance with respect to both the vertical and the horizontal function. Instead, while some media systems fulfill the vertical function to very high degrees, others score higher on the horizontal function or components thereof. There is, however, a group of countries with at least moder-

[54] However, with regard to Slovakia many newspapers were coded as ‘neutral’ because no information on their political positions could be found.

ately high values on both functions. This especially applies to Central and Western European states like Austria, Germany and Switzerland. The Scandinavian and Anglo-Saxon countries as well as Japan, by contrast, perform very well with regard to the vertical media function, whereas small European countries like Cyprus, Malta and Luxembourg, but also Switzerland, are leading in terms of quantitative media diversity, the first component of the horizontal function. As for the second component, qualitative media diversity, some European countries like Finland, France and Norway show a good performance, and so do India and Israel. Generally, this component turned out to be a little bit more difficult to interpret. This is especially true in the case of the respective latent dimension discovered on the basis of the small country sample, because it is characterized by a trade-off between its two constitutive elements. Hence, while extreme values on the resulting scale in both directions point to an imbalance between diversity of opinions in the press on one side and the broadcast sector on the other, values around the mean, i.e., around 0, indicate an equilibrium between the two, which might be considered the optimal outcome.

By and large, the country classifications according to the cluster analyses in the large and the small country sample are rather congruent. The first clusters in both analyses are characterized by the best simultaneous fulfillment of different dimensions of media performance and they are partly composed of the same, mostly Central European countries. Clusters 2 strongly focus on the vertical media function and they include most Scandinavian and Anglo-Saxon countries in both the small and the large sample versions. Moreover, a similar profile can also be observed for cluster 4 in the large country sample and cluster 3 in the small sample analysis even though the country compositions do not match. Finally, the last type in both cluster analyses exhibits a rather low media performance in general which is mostly found in younger democracies and less developed countries worldwide, but particularly Eastern Europe.

Nevertheless, the two cluster analyses also produced divergent classifications for some countries. This is because cluster analysis is an inductive and only approximate procedure. Such

deviations are most evident for Belgium, France and Ireland, which belong to completely different types in the analyses with the two different country samples. I therefore briefly discuss these three cases.

Belgium and Ireland both belong to the 'worst' performing cluster 5 in the large country sample but the 'best' performing cluster 1 in the small country sample. At the same time, France moves from the 'best' performing cluster 1 in the large sample to what might be called the 'second worst' performing cluster 3 in the small sample. All of these shifts can mainly be explained by the dimension of quantitative television diversity, which only exists in the small country sample and which is very dominant for cluster 1 in table 5.5. Belgium and Ireland both have very high scores with respect to that dimension. Moreover, because in the small country sample the factor for quantitative press diversity is additionally composed of the indicator for internal opinion diversity in the press system, the values for this dimension for Belgium and Ireland as well as the other, already previous cluster 1 countries resemble each other more closely. This is why the Belgium and Ireland switch groups even though their values on the remaining two dimensions in the small country sample do not change considerably.

By contrast, France does not perform very well with regard to the quantitative diversity within the broadcast sector. Thus, it can no longer belong to cluster 1 in the small sample analysis. At the same time, in the small country sample version, France scores lower on the factor for the vertical media function but higher on the factor for qualitative media diversity. This brings it in line with the other three cases in cluster 3.

But overall, the congruencies largely outweigh these deviant cases. Comparing the cluster analysis results of the two different country samples suggests that the patterns of media performance are quite robust. Moreover, some interesting similarities can be observed between the types of media systems identified in this book and the famous three models of media systems by Hallin and Mancini (2004; see chapter 2). Although the dimensions assessed differ in

the two studies (only the strength of the newspaper industry as well as the diversity of opinions in media systems is important in both typologies) the compositions of the country groups are partly consistent with each other. This applies to both cluster analyses but is especially evident with respect to the small country sample studied here, which is more in line with the 18 cases analyzed by Hallin and Mancini (2004). In particular, it is striking that with the exception of Portugal, all of Hallin and Mancini's (2004) polarized pluralist countries jointly form a distinct type (cluster 3 in table 5.5 above). These, according to the authors, are characterized by a stronger broadcast than print sector and a rather high degree of political parallelism, which is exactly what cluster 3 in table 5.5 shows. The differentiation between Hallin and Mancini's (2004) other two models, the liberal and the democratic corporatist type, is less clear-cut in the patterns presented in this book. On the one hand, cluster 2 in table 5.5 combines the countries which for the authors constitute ideal types of the democratic corporatist model, namely the four Scandinavian countries. On the other hand, the United Kingdom as a representative of the liberal model is also assigned to this group. Similarly, cluster 1 includes four democratic corporatist countries – Austria, Germany, the Netherlands and Switzerland – along with one liberal case – Ireland. It should be noted, however, that Ireland and especially Great Britain are actually considered mixed types of the liberal and democratic corporatist models (Hallin and Mancini 2004: 69). Hence, it is not implausible that these countries are classified together with Northern and Central European countries. Finally, it may be added that cluster 3 was attributed a rather poor general media performance compared to clusters 1 and 2. In a similar vein, the polarized pluralist model can be regarded as inferior to the other two models even though this is only implied but not actually stated by Hallin and Mancini (2004). However, the verdict of the worst performing media systems actually falls on cluster 4 in table 5.5, to which the Eastern European cases Bulgaria, Croatia, Czech Republic, Hungary, Poland, Slovakia and Slovenia as well as Cyprus and Portugal belong. Apart from Portugal, none of these countries are part of Hallin and Mancini's (2004) country sample. This

suggests that when expanding media system assessments beyond Hallin and Mancini's (2004) 18 cases, a more differentiated typology than theirs may be needed (also see Blum 2005a).

5.3 Explaining structural media performance

In a final step, the focus of chapter 5 turns to the search for the determinants of structural media performance. In other words, under what circumstances do media systems perform well with regard to the vertical and the horizontal function? To find answers to this question, the factor scores from the analyses in tables 5.1 and 5.2 are used as dependent variables in multivariate regression analyses.

5.3.1 Defining the explanatory variables

Three types of parameters might serve as explanatory variables. First, at the end of chapter 3 it was argued that media freedom and media regulation should be considered preconditions of democratic media performance rather than integral elements thereof. It can now be tested whether this expectation holds. For media freedom, I employ the widely used press freedom index by Freedom House (also see chapter 2), which is available for all 47 countries of the larger sample and all 19 years of the time series.[55] The index ranges from 0 to 100, with higher values indicating higher media freedom, and it is based on expert ratings of a variety of aspects. These include political repression of and economic constraints for the media as well as restrictive media regulation (see footnote 55). So in some sense, the index for media freedom already considers media regulation, though in a negative sense. A further indicator for media regulation can be derived from Voltmer (2000). Her paper provides data for the presence of four different forms of press ownership regulation in various countries. Added up, this gives an index from 0 (no ownership regulation) to 4 (strong ownership regulation). This is of

[55] Available at http://www.freedomhouse.org/report-types/freedom-press (08/28/2012). The index is actually the sum of three components: 1) the laws and regulation that influence media content; 2) political pressures and controls on media content as well as repressive actions; 3) economic influences over media content. However, the three components are so strongly correlated to each other and the overall press freedom index that working with the three component indices instead of the aggregate score does not add anything to the analysis.

course only a rough proxy for media regulation since it exclusively focuses on the press and ownership and because no time series is available. Moreover, it only covers 21 of the 47 countries of the large sample. But I am not aware of another study that provides better quantitative and ready-made measures for media regulation.

A second set of independent variables refers to a country's socio-economic context. On the one hand, the size of a country might affect the configuration of its media system. The discussion in section 5.2 suggested that small countries perform better in terms quantitative diversity. Thus, population figures (in millions) are included. On the other hand, the wealth of a country is measured by its GDP per capita in thousand U.S. dollars. This should be an especially important predictor of the vertical media function. Both economic prosperity and media penetration have long been regarded as key characteristics of modernization (see e.g. Lipset 1959; Neubauer 1976). The figures for population size and GDP per capita are taken from the World Bank database.[56]

Finally, the political-institutional setting is likely to influence media system performance as well. After all, the interplay and joint evolution of political institutions and media systems is Hallin and Mancini's (2004) central assumption. The institutional context should therefore be accounted for among the explanatory factors as well. However, one has to be careful to not run into a circular argument here. As outlined in chapter 1, the second part of this book will deal with how media performance affects different aspects of the quality of democracy. Hence, the causal arrow will then point the other way, from media performance to democracy. It is therefore very important to distinguish what I mean by political context here from what is being studied in chapters 7 and 8. To explain the cross-country variation in structural media performance, I rely on the two dimensions of democracy as proposed by Lijphart (1999). These two dimensions can be considered to reflect long-term political traditions and histori-

[56] World Bank database: http://databank.worldbank.org (08/28/2012).

cally developed institutional configurations, which broadly differentiate between two general types of democracy: majoritarian versus consensus democracies. By contrast, the democracy measures applied later in this study assess rather subtle and short-term variations in countries' quality of democracy, i.e., immediate manifestations of constitutional reality. Just like media performance, these might in fact depend on the larger institutional context too.

The two dimensions of Lijphart (1999) are the "executives-parties dimension" and the "federal-unitary dimension". The former captures the electoral system and the party system and basically measures whether single parties can and do control the whole government. The latter indicates to what extent the government concentrates political power or is held in check by other players (such as subnational units, the parliament, the judiciary or the central bank). The factor values for both dimensions are available for 29 of my 47-country sample and they are calculated over a period of almost 30 years (1982 to 2010). Thus, they are constant over time. On both dimensions, higher values denote more consensual democracies, i.e., democratic systems where political power is shared among different parties (executives-parties dimension) and more diversified across different institutions (federal-unitary dimension).

But how can Lijphart's (1999) two dimensions be expected to relate to media performance? Generally, they are assumed to rather correlate with the horizontal media function. For example, quantitative media diversity – the first component of the horizontal function – should be higher in consensus democracies. This is because, on the one hand, federal systems are likely to exhibit a larger regional variety of media outlets. On the other hand, many newspapers originate from party organs or were launched to advocate certain political forces within the society. And since more of these political forces are formally organized in multi-party systems, media systems might be more pluralistic in the respective countries. As for qualitative media diversity, different expectations are possible. Especially internal opinion diversity could be better fulfilled in democracies that score low on the executives-parties dimension. Mass media in two-party systems, in line with the political logic, are likely to adopt a more

mainstream, catch-all approach and political neutrality. Accordingly, Hallin and Mancini (2004) argue that majoritarian democracy coincides with low political parallelism. And even if mass media do support a specific political party, achieving a balance on the system level is easier when there are just two similarly strong political camps. By contrast, there is also reason to assume that opinion diversity is higher in countries that score high on the executives-parties dimension. This is because a system of power sharing is associated with a culture of compromise and the coordination of different interests. As a consequence, different political ideologies should be better represented and balanced in the public sphere.

5.3.2 Predicting media system's fulfillment of the vertical function

Since several of the independent variables do not vary over time, the regression analyses are performed for the averages of all the data across 1990 to 2008. Tables 5.6 to 5.8 show the results of various OLS regression models, using the factor scores of the three overall means factors from the analysis with the large country sample as dependent variables (see right-hand section of table 5.1). Due to the rather low number of and partly missing cases, four different models were tested for each dependent variable, respectively.

Table 5.6 *Explaining vertical media function performance*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.057	(0.009) ***	0.016	(0.010)	0.154	(0.048) **	-	-
Press regulation	-	-	-	-	0.399	(0.167) *	-	-
Population	-	-	0.000	(0.001)	-	-	-	-
GDP p.c.	-	-	0.047	(0.009) ***	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.062	(0.195)
Federal-unitary	-	-	-	-	-	-	0.115	(0.165)
Constant	-4.364	(0.679) ***	-2.068	(0.686) **	-13.027	(4.286) **	0.493	(0.180) *
Model Properties								
R^2	0.484		0.693		0.366		0.021	
Adjusted R^2	0.473		0.672		0.296		-0.054	
N	47		47		21		29	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the large country sample.

In table 5.6 the dependent variable is the vertical media function (factor 1 in the right section of table 5.1). Looking at the first model, the coefficient for media freedom is positive and highly significant. Thus, as expected, higher media freedom is indeed associated with a better performance of media systems with respect to the vertical function. Moreover, the effect seems to be quite substantial. 10 additional points on the press freedom index (which theoretically ranges from 0 to 100) raise the vertical function by about 0.6 points. This equals about one sixth of its full scale (see table 5.3). If the two socio-economic variables are added to the estimation, however, the impact of media freedom is entirely absorbed by GDP per capita, which exhibits the only significant coefficient in model II. Again, this effect is considerably strong. This is also reflected in the model properties. Model II explains a large proportion of the variation in the vertical media function (adjusted $R^2 = 0.672$), especially in comparison to model I (adjusted $R^2 = 0.473$). If model II is estimated without the press freedom index, the model properties change negligibly. Hence, media performance with regard to the vertical function is largely driven by economic prosperity and modernization.

Model III introduces the two variables related to media policy. Adding the press regulation indicator reduces the number of cases to only 21 OECD countries. Interestingly, even within this smaller set of countries, media freedom has a significant and positive coefficient. Compared to model I, the effect is in fact more than twice as strong. In addition, the press ownership regulation index also has a positive impact. If a country adopts one more regulation provision, its predicted level of fulfillment of the vertical media function increases by about 0.4 scale points. However, due to the low number of cases, these results have to be taken with a pinch of salt. Moreover, model III has a poor goodness-of-fit. The low number of cases is also why I refrained from estimating a model with all six independent variables together.[57] If only

[57] When all variables are combined, significant coefficients are found for the press freedom index, press ownership regulation, population and the federal-unitary dimension (negative effect). GDP per capita, by contrast, is no longer significant. Interesting is the negative effect of the second Lijphart (1999) dimension. It appears that in

GDP was added to model III, however, the results for media freedom and regulation would remain essentially the same although the coefficients would be less statistically significant (results not shown in table 5.6). GDP, by contrast, would no longer have a significant effect, which suggests that wealth does not vary as greatly in the 21 countries remaining in model III compared to the full set of 47 countries.

As for model IV, none of the Lijphart (1999) dimensions has a significant relationship with the dependent variable. Accordingly, it has very poor overall properties.

In order to corroborate the findings, the same types of regressions were also estimated for the smaller sample of 24 countries and the scores of the corresponding factor for the vertical function (factor 1 in the right section of table 5.2). The results are found in table A5.3 in the appendix, and they are practically identical to the ones for the larger country sample.

5.3.3 Predicting media systems' fulfillment of quantitative diversity

Table 5.7 presents regression models with the same independent variables but with the first component of the horizontal media function – quantitative diversity – used as dependent variable (factor 2 in the right section of table 5.1).

Generally, and in contrast to table 5.6, there are almost no significant effects and the four models have a very low goodness-of-fit. The only exception is the press freedom index, which is again positively related to media performance. However, as indicated in model I, the predicted influence of media freedom on quantitative media diversity is considerably weaker than on the vertical media function. Although the range of the scale for quantitative diversity is larger than for the vertical function, the press freedom estimate in table 5.7 is only half the size of its counterpart in table 5.6. Correspondingly, it explains very little of the dependent variable's variation (adjusted R^2 = 0.125). If press ownership regulation is included as in

the respective 21 countries, the vertical function is better fulfilled in unitary than federal countries. The adjusted R^2 of 0.556 for this model is quite high.

model III and the sample thus reduced to 21 countries, media freedom barely reaches statistical significance, though the effect now again appears to be substantially stronger. Finally, press freedom turns insignificant when combined with the socio-economic variables in model II.

Table 5.7 *Explaining horizontal media function performance: quantitative diversity*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.031	(0.011) **	0.025	(0.017)	0.120	(0.063) $^{+}$	-	-
Press regulation	-	-	-	-	-0.076	(0.219)	-	-
Population	-	-	-0.001	(0.001)	-	-	-	-
GDP p.c.	-	-	0.005	(0.014)	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.187	(0.229)
Federal-unitary	-	-	-	-	-	-	-0.170	(0.194)
Constant	-2.380	(0.875) **	-1.927	(1.117) $^{+}$	-10.002	(5.619) $^{+}$	0.022	(0.212)
Model Properties								
R^2	0.144		0.186		0.347		0.055	
Adjusted R^2	0.125		0.130		0.274		-0.017	
N	47		47		21		29	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the large country sample.

Interestingly, GDP per capita, which is a very strong predictor of media systems' compliance with the vertical function, has no impact on the first component of the horizontal function.[58] Neither do any of the other four independent variables. This is somewhat surprising with respect to press regulation. After all, the most common argument in favor of strong regulation of media ownership is the fear that unhindered media concentration results in a loss of media diversity and a dwindling supply of different sources of information. The evidence presented here does not support this claim. On the contrary, the fact that the coefficient for press regula-

[58] However, GDP per capita is significant on the 5-percent level when model II is estimated without media freedom. Furthermore, in a model with all six variables, GDP per capita (positive) and population (negative) are the only variables that yield significant coefficients. For the respective estimation on the basis of 21 countries, the adjusted R^2 is remarkably high (0.673).

tion is even negative actually suggests the opposite. However, as noted above, solid results would require a higher number of cases.

Again, the institutional context produces no significant effects. Thus, the theoretical assumptions discussed above regarding the relationship between the two Lijphart (1999) dimensions and quantitative media diversity have to be rejected. However, the estimate for the executives-parties dimension at least has the anticipated sign.

As described in section 5.1.2, quantitative media diversity actually splits into two dimensions when media performance is measured by more indicators, but on the basis of fewer countries. The first relates to quantitative press diversity, the second to quantitative television diversity (see table 5.2). Thus, when the same types of regressions are estimated for the smaller sample of 24 countries and the scores for these two dimensions of quantitative diversity as dependent variables (factors 2 and 3 in the right-hand section of table 5.2, respectively), some of the findings deviate from the ones just discussed. In the following I briefly outline the main differences. The precise results for the reduced sample of 24 European cases are found in the appendix (see tables A5.4 and A5.5).

The regression models for quantitative press diversity in table A5.4 should be more or less comparable to the ones in table 5.7 since quantitative diversity is only measured by the press variables in the case of the larger country sample. But since quantitative press diversity is further determined by the indicator for internal opinion diversity in the small country sample factors, the findings are quite different. Contrary to the large country sample, the press freedom index has no significant impact on quantitative press diversity in model I anymore. Only in combination with press regulation does press freedom still exhibit a significant positive estimate. Furthermore, in line with the expectations following from the discussion of table 5.3, a significant and negative effect is found for the size of the population in model II. Accordingly, quantitative press diversity seems to be higher in the smaller countries among the

24 included in the estimation. This is plausible if we consider that small countries probably import more foreign print media than large countries, where minority groups are large enough to produce their own outlets. But since this mostly seems to apply to small European countries, the effect disappeared in the large country sample.

In addition, the quantitative press diversity models with the small sample show a significant impact of Lijphart's (1999) executives-parties dimension, which was not present in table 5.7. Hence, this effect is most likely owed to the political neutrality of the press system (internal opinion diversity) which only loads onto the dimension for quantitative press diversity in the factors of the small country sample. Interestingly, there is also a significant and positive relationship between a Lijphart (1999) dimension and the quantitative diversity of the television sector, the latent dimension that is only present in the small country sample (see table A5.5). Yet in this case, the federal-unitary dimension is concerned. Both of these effects are in line with the theoretical expectations postulated with respect to the influence of the institutional context above (see section 5.3.1). Since the respective estimations are only based on 16 cases, however, the findings should not be overinterpreted.

5.3.4 Predicting media systems' fulfillment of qualitative diversity

Finally, table 5.8 shows the regression models estimated to explain the second component of the horizontal media function: qualitative diversity (factor 3 in the right section of table 5.1).

Quite obviously, virtually none of the independent variables is related to the dependent variable. With one exception, all coefficients are insignificant, and all four models fit the data very badly. The only significant impact is found for Lijphart's (1999) executives-parties dimension. Accordingly, in countries where power is shared more broadly among many parties, the diversity of opinions in the press system is larger and more balanced. This provides evidence in support of the second assumption outlined above concerning the relationship between the executives-parties dimension and qualitative media diversity. A tradition of political com-

promise and collaboration also induces media systems to represent different political viewpoints more equally.

Table 5.8 *Explaining horizontal media function performance: qualitative diversity*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.000	(0.012)	-0.011	(0.018)	0.022	(0.069)	-	-
Press regulation	-	-	-	-	-0.141	(0.240)	-	-
Population	-	-	0.002	(0.001)	-	-	-	-
GDP p.c.	-	-	0.016	(0.015)	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.444	(0.194) *
Federal-unitary	-	-	-	-	-	-	0.029	(0.164)
Constant	-0.022	(0.946)	0.492	(1.194)	-1.608	(6.157)	-0.067	(0.179)
Model Properties								
R^2	0.000		0.070		0.074		0.168	
Adjusted R^2	-0.022		0.005		-0.029		0.104	
N	47		47		21		29	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the large country sample.

The predicted effect, however, is not very strong. If the executives-parties dimension is increased by 1, i.e., one standard deviation, this only enhances media performance of qualitative diversity by 0.444 scale points. The poor model fit supports this observation (adjusted R^2 = 0.104). Furthermore, it is somewhat surprising that media freedom has no influence on qualitative diversity. After all, it seems intuitive to assume that if mass media face political repression and legal content restrictions, this should lead to less neutral and less ideologically balanced press systems. However, with an average of 76 scale points, media freedom is generally rather high in the 47 countries studied here, which probably diminishes its effect. As for press ownership regulation, finally, a similar conclusion as for the previous analysis of quantitative media diversity can be drawn here. While proponents of stronger media regulation generally argue that the liberalization of media markets endangers the diversity of opinions in the public sphere, the results presented here suggest otherwise. The press regulation index is not significant in model III and neither if estimated without media freedom. And again, if anything, the

relationship between qualitative media diversity and ownership regulation would be negative, as the respective estimate shows.

Just like for the vertical media function and quantitative media diversity, regression models predicting qualitative media diversity were also run for the smaller sample of 24 countries. Accordingly, the scores of factor 4 in the right section of table 5.2 were regressed on the same independent variables. Table A5.6 in the appendix presents the respective results.

Similar to its counterpart in the large country sample, no significant effects can be observed. But while at least the executives-parties dimension showed a positive impact in table 5.8, this association also disappears when the same estimation is performed on the basis of only 16 countries. This again illustrates that the positive relationship between qualitative media diversity and the executives-parties dimension observed in table 5.8 is due to the indicator for internal opinion diversity, which no longer loads onto the factor for qualitative media diversity in the small country sample. Thus, no explanation for the variation of this factor could be found. However, due to the discussed non-linearity of the respective scale, resulting from the contradictory factor loadings of the items for print and broadcast media, this is a difficult task anyway. It is possible that there would be significant relationships between the independent variables and the individual indicators for this latent dimension, which cancel each other out when the indicator values are combined to the factor scores.

5.3.5 Summary

The analyses performed to find explanations for the differences in media systems' fulfillment of the vertical and the horizontal function can be summarized very briefly. The multivariate OLS regressions showed that the vertical function is largely driven by a country's economic prosperity, as measured by GDP per capita, and media freedom, which itself mainly seems to be function of GDP as well.

The findings for the horizontal function are generally less convincing because they vary more across the two different country samples and because the models usually fit the data rather poorly. However, while a combination of press freedom and GDP per capita seems to account for some of the variation in quantitative press diversity in the large country sample as well, it is rather related to the size of a country in terms of its population and to Lijphart's (1999) executives-parties dimension in the small country sample. In contrast, quantitative diversity with regard to the broadcast media sector, which can only be assessed for the small country sample, is positively influenced by Lijphart's (1999) federal-unitary dimension.

Qualitative diversity, the second component of the horizontal media function, turned out to be the most difficult to explain. Only one significant effect was found, and it only applies to the estimation with the larger country sample. Accordingly, qualitative media diversity is higher in more consensual democracies in terms of the executives-parties dimension.

Finally, it has to be noted that although the results found with regard to the institutional context are interesting and mostly conform to the theoretical assumptions, they have to be taken with great caution because of the very low number of cases upon which the respective estimations rest.

5.4 Conclusion

The aim of this first empirical chapter was to study media performance on the structural, i.e., media system level. In section 5.1, I tested whether the indicators for structural media performance, which were purely derived on theoretical grounds, correlate according to the two media functions conceptualized in chapter 3. Although exploratory factor analyses found more than two dimensions for both the large and the small country sample as well as both types of datasets (overall indicator means versus panel data based on five-year averages), the results nevertheless correspond to the theoretical framework. The vertical function was reproduced like expected in every case while the horizontal function split into its two components, quanti-

tative and qualitative media diversity. Moreover, in the analyses with the small country sample and three additional indicators, quantitative media diversity was further subdivided according to different types of media, the print and the television sector. Hence, these two media sectors do not seem to work the same way but rather follow their own and sometimes compensatory logics. This has also become clear with regard to qualitative diversity in the reduced 24-country sample, which showed a trade-off between the press and broadcasting within the same latent dimension.

Section 5.2 used the factor scores from section 5.1 to study country patterns in terms of their media systems' democratic performance by means of descriptive and cluster analyses. The findings revealed, on the one hand, substantially varying degrees to which the two media functions are fulfilled across the cases examined. On the other hand, groups of countries with similar patterns of media system performance could be identified. Most importantly, none of them appears to score very high on both media functions and their components. Some countries perform particularly well in terms of the vertical function only (such as Japan as well as most Scandinavian and Anglo-Saxon countries). Others are much stronger with regard to the horizontal function, either quantitative diversity (such as Cyprus, Malta and Luxembourg) or qualitative diversity (such as France, India and Israel). However, there are also countries that achieve at least a fairly good balance of both functions and components and therefore perform moderately well throughout (mostly Central European countries like Austria, Germany and Switzerland). Finally, media systems with a comparatively poor performance of both media functions are found in the younger democracies and less developed countries of Southern and Eastern Europe as well as Latin America and Asia. These patterns proved to be largely consistent across the large and the small country sample analyses, and they also share some similarities with the typology of media systems by Hallin and Mancini (2004).

The last part of the chapter, section 5.3, looked for explanations of the different levels of structural media performance across countries. Three different sets of independent variables

were tested against the factor scores from section 5.1 in a multivariate regression framework. The first related to media freedom and media regulation, the second to a country's socio-economic conditions and the third to its political-institutional context. The vertical function was clearly found to be related to a country's level of prosperity, both directly and indirectly via press freedom. The horizontal function, by contrast, was more difficult to explain. While the impact of the independent variables differed across the two country samples for quantitative media diversity, no significant effects were observed for qualitative media diversity (see 5.3.5).

After this detailed examination of the democratic performance of media systems across 47 and 24 countries, respectively, the next chapter shifts its focus to the content level. Hence, chapter 6 will provide analyses similar to the ones in chapter 5 but use data from the content analysis of 50 newspapers from 10 countries instead.

Chapter 6:
Comparing the democratic performance of media content

While the previous chapter was concerned with the structural performance of mass media, i.e., how well media systems are designed to comply with democratic goals, chapter 6 focuses on media content. Again, by means of a mostly inductive research strategy, I will explore how the newspapers examined within ten countries perform with regard to the measures defined in chapter 4. The empirical approach chosen in this chapter is very similar to the study of structural media performance in chapter 5 although the order of the analyses is somewhat reversed. First, as in the previous chapter, factor analysis will be used to find out whether the nine indicators for democratic media performance on the content level relate to each other as proposed in the conceptualization of the vertical and the horizontal media function. Because of the low number of countries, the units of analysis in chapter 6 are always the 50 newspapers. For this reason, the second step is to test whether these newspapers' fulfillment of the vertical and the horizontal function with regard to their news coverage significantly varies between countries or whether it merely depends on their outlet-specific characteristics. Both descriptive and regression analysis can help finding answers to this question. Finally, I study more comprehensively whether and what kind of patterns can be identified in terms of newspapers' democratic performance on the content level. Scatter plots and cluster analysis will give insight as to how the media functions interact and which configurations of the two can be observed across newspapers and especially across countries.

6.1 The dimensions of media performance on the content level

As described in chapter 4, multiple indicators were defined to measure the vertical and the horizontal media function on the content level. And like for the structural level, all of these were derived and assigned to either one of the two functions purely on theoretical grounds.

Hence, the aim of this section is to test whether an exploratory factor analysis reproduces the assumed dimensions from the underlying content analysis data. On the one hand, it is of interest whether the theoretical classification of indicators as either 'vertical' or 'horizontal' holds in reality. On the other hand, it needs to be examined whether the model is in fact two-dimensional or whether the media functions divide into different components. In chapter 5, this turned out to be the case with regard to the horizontal but not the vertical function. In terms of media content, by contrast, a partition into various components would be in line with the theoretical conceptualization of the vertical but not the horizontal media function. As discussed in chapter 3, the vertical function consists of the two components on the content level, namely the amount of critical political information and the balance of political information.

Data about media content is only available for ten countries, which is not enough to perform factor analysis. Thus, the following calculations are based on individual newspapers. This leaves us with 50 and thus a number of cases that allows for a robust analysis with sufficient confidence. In addition, this approach provides the opportunity to examine whether the performance of these newspapers indeed varies across countries or more between different types of newspapers, for instance between tabloids and broadsheet papers.

Table 6.1 below presents the results of a principal components factor analysis with the nine indicators listed in table 4.2 in chapter 4. Three components emerged from the exploratory analysis, all of which display quite high factor loadings for their respective items and do not differ greatly in terms of their explained variance. Furthermore, seven of the nine indicators load exclusively onto one of the three dimensions.

Hence, just like in the previous analyses of the structural indicators, the factor analysis of the content indicators does not exactly reproduce the two dimensions outlined in the theoretical

model, but rather suggests a three-dimensional concept of democratic media performance.[59] But again, the three factors are nevertheless in line with the conceptualization of the vertical and the horizontal media function.

Table 6.1 *The latent dimensions of media performance on the content level*

		Factor		
		1	**2**	**3**
Vertical	Share of articles covering political news	**.744**	.265	.081
	Share of government articles mentioning malpractice	**.862**	-.018	.173
	Share of parliament articles mentioning malpractice	**.842**	-.167	.163
	Balance of powers: government vs. parliament vs. judiciary vs. public administration	.035	**.946**	.050
	Balance of powers: government vs. parliament	-.043	**.919**	.014
Horizontal	Balance of parties: equitable allocation	**-.454**	.220	**.760**
	Balance of parties: proportional allocation	**-.802**	.055	.180
	Share of party articles mentioning at least two parties	.204	-.030	**.881**
	Mean number of political parties mentioned per article	**.493**	-.040	**.598**
Eigenvalues		3.14	1.89	1.81
Explained variance in %		34.91	21.02	20.11
Number of cases		50		

Notes: rotated factor loadings using principal component analysis and Varimax rotation; factors with Eigenvalue > 1 were extracted; explained total variance: 76.03%; bold: loadings ≥ .400 or ≤ -.400; grey: highest loading per item.

A closer look at table 6.1 shows that the indicators which were assigned to different media functions on theoretical grounds indeed do not load together, with one exception to be discussed shortly. Instead, some of the indicators from the same function split into two latent dimensions. Contrary to chapter 5, however, it is the vertical function which divides into two components here. This largely corresponds to the theoretical assumptions.

Factor 1 can be regarded as the first component of the vertical media function, which assesses the amount of critical political information. All of the three respective items load strongly here, namely the share of articles containing keywords referring to political processes or institutions as well as the shares of articles about governments and parliaments containing key-

[59] In the structural case, this only applied to the model with the larger country sample and the reduced set of indicators though.

words pointing to corruption, scandals or various forms of fraud or lying. Thus, as argued in chapter 3, this component seems to reflect the degree to which political decision-makers are being covered and scrutinized by the press. In that sense, it allows for assessments of the amount of political news or information conveyed by newspapers. In addition to the three vertical function indicators, three of the indicators of the horizontal function also load above 0.4 or below -0.4 onto this factor, respectively. I will come back to this later.

The second factor adds a further distinctive aspect to the vertical media function. The two items which belong to its second component display very high factor loadings here. The first one captures the degree to which newspapers cover the three branches of democratic government as well as the public administration to equal extents. The second does the same but considers only government versus parliament because these are the two powers which are chosen and legitimized by democratic elections. Moreover, it is often bemoaned that media increasingly shift their attention to the more newsworthy executive actors at the expense of legislatives (Van Dalen 2012). In short, instead of the simple amount of information, factor 2 measures the balance of information about political institutions and their representatives. One could thus also argue that this latent concept takes somewhat of a middle position between the vertical and the horizontal media function, i.e., between their respective key goals of information and diversity. However, since factor 2 still exclusively deals with constitutional powers which require public surveillance, it is justified to consider it a component of the vertical media function.

Finally, factor 3 clearly represents the horizontal media function. Three of the four respective indicators load highest onto this single dimension. The balance of political parties in media news coverage according to the principle of equality (the idea that the news space should be allocated equitably[60]), the share of articles about political parties mentioning at least two par-

[60] The two measures for the balance of political parties in the press coverage (items 1 and 2 of the horizontal function) represent different normative ideals about what the appropriate amount of media attention devoted to

ties as well as the relative average number of parties mentioned per article can therefore be taken as good parameters of the media's democratic performance in terms of the horizontal function. The balance and the mean number of parties, however, are also weakly related to factor 1. Moreover, the alternative conception of the diversity or balance of political parties does not belong to factor 3 at all. This indicator measures how well parties are proportionally considered in the press coverage, by comparing their vote shares in the previous election with the relative frequency with which they are mentioned in the newspapers under study (essentially a reversed Gallagher index). So while the index does have a positive correlation with the other three indicators of the horizontal media function, the respective factor loading is only 0.180. Instead, this element has a very high and negative factor loading with the first component of the vertical function. Apparently, a high amount of political information and critical press coverage is associated with a low degree of proportional media attention for political parties.[61] Given that the first party balance variable has a non-negligible and negative correlation of -0.454 with factor 1 as well, this suggests that there is indeed a trade-off between newspapers' capacity to provide a high amount of critical political information and their ability to establish a good diversity of and dialogue between political parties.

In sum, the measures gathered from a content analysis of 50 newspapers in ten countries represent the theoretical media functions quite well. In line with the theoretical framework for the content level, the horizontal function is one-dimensional whereas the vertical function divides into two components, namely the amount of critical political news and the balance of information about political institutions.

single parties should look like (see the respective discussion in chapter 3). While some democratic models would rather plead for an equitable allocation of news space for political parties, others would argue for a proportional distribution according to the parties' importance, e.g. in terms of their electoral strengths (Ferree et al. 2002; Ramsden 1996).

[61] To test the robustness of these findings, the factor analysis was also conducted including only one of the two party balance measures at a time. The results do not change.

6.2 The variance of media content performance within and across countries

The aim of this book is to make assumptions about media performance across countries. In the previous section, however, the dimensions of media's fulfillment of the vertical and horizontal function with regard to media content were measured on the basis of individual newspapers. This raises the question of whether newspapers from the same country are similar in their level of media performance or whether the variance within countries is just as large as across countries. In order to find answers for this, section 6.2 proceeds in the following two steps. First, a comparison of factor scores from the previous analysis provides insight about the differences of media performance both within and between countries. Second, I will conduct regression analyses to explain newspapers' level of the vertical and the horizontal function by both outlet and country characteristics.

6.2.1 Comparing the variance of media content performance within countries

Table 6.2 presents the average scores and standard deviations of the three factors in table 6.1 per country.

Table 6.2 *Average media performance per country – means and standard deviations*

	Vertical function				**Horizontal function**	
	Amount of information		***Balance of information***			
	Mean	*St.dev.*	*Mean*	*St.dev.*	*Mean*	*St.dev.*
Australia	0.816	0.364	-0.983	0.380	-1.217	0.701
Austria	-0.879	0.098	-1.115	0.515	0.954	0.405
Canada	0.394	0.221	-0.651	0.240	1.351	0.278
Germany	-0.735	0.907	0.286	0.574	0.378	1.152
France	-0.254	0.850	0.840	0.685	-0.564	0.335
Ireland	-0.035	0.048	-0.001	0.558	-0.377	0.724
New Zealand	0.197	0.292	-1.277	0.723	-0.729	1.056
Switzerland	-1.303	0.239	0.962	0.468	0.342	0.409
United Kingdom	0.007	0.510	0.913	0.302	-0.678	0.314
United States	1.932	0.429	0.968	0.367	0.390	0.612

Notes: figures based on factor scores from table 6.1.

As the mean values show, most countries clearly score below or above the overall mean value of 0 (note that factor values are standard scores). Exceptions in terms of the first component of the vertical function are Canada, France, Ireland, New Zealand and the United Kingdom, which all exhibit mean factor values that do not differ greatly from 0. With respect to the second component, rather small absolute mean values can be observed for Germany and Ireland. As for the horizontal function, finally, the same holds for Switzerland, the United States and – again – Germany and Ireland.

Likewise, looking at the standard deviations reveals that the newspapers from a country mostly score similarly above or below 0 on the vertical and the horizontal media function. Apart from most of the cases just mentioned, the newspapers between two standard deviations lie in the same value range (positive vs. negative) in every country. This is actually even true for Canada's scores on the first component of the vertical function. Although its mean value of 0.394 is not that high, subtracting the standard deviation (0.221) still results in a positive score. Finally, it is also worth noting that at least in terms of the first component of the vertical function the standard deviation of Ireland is very small. This indicates that Ireland's mean is not close to 0 because its cases are widely dispersed but because they all exhibit a similarly moderate performance of the vertical function's first component.

Hence, the results suggest that countries are quite homogenous in terms of the democratic performance of their press, as represented by five of the ten largest newspapers. It seems that media performance on the content level is more or just as likely a function of a country's specific "news culture" (Esser 2008) than of individual editorial policy.

6.2.2 Explaining media content performance

However, further analyses are required to test whether the values from the factor analysis in table 6.1 are indeed determined by country characteristics or rather by specific features of individual media outlets, which are not necessarily equally distributed within the country

samples. The remainder of this section 6.2 will therefore discuss various OLS regression models, using the horizontal function as well as the two components of the vertical function as dependent variables. The results generally seem to confirm the conclusion drawn above. It is not only the outlets' characteristics but also the country context which determines how well a newspaper conforms to democratic standards. But before these results are presented in more detail, the independent variables need to be introduced.

Defining the explanatory variables

The independent variables include, on the one hand, newspaper characteristics. All of the respective information is presented in the appendix of chapter 4 (see table A4.3). Three dummy variables measure whether a newspaper is a tabloid, a regional/local newspaper or a broadsheet newspaper. Generally, broadsheets can be expected to perform better than the other two types, especially regarding the vertical function, because this category incorporates a country's large quality newspapers and thus the more established and traditional news sources. Regional newspapers, by contrast, often focus on all kinds of local events but not necessarily politics. Similarly, tabloids tend to cover more crime and human interest stories than political news. However, given that the first component of the vertical function also reflects the degree to which media coverage fulfills its watchdog role and reports about official misconduct, it is possible that tabloids might not fall (far) behind broadsheet newspapers. Tabloid newspapers are of course typically at the forefront when it comes to exposing and reporting about political scandals. Moreover, broadsheets often have traditional political ties which might lower the degree to which they provide a good balance of political parties as required by the horizontal media function. Thus, three further dummy variables assess whether a newspaper is rather leftist, rightist or independent. Finally, a newspaper's circulation is considered as well. The reasoning behind this is that larger news organizations are supposed to have more capacity and resources to provide high-quality media coverage in line with normative standards.

On the other hand, a set of nine indicators captures country characteristics. First, the factor values for structural media performance as established in the previous chapter are included. These can be considered as reflecting different media cultures which might affect the output of individual outlets. More precisely, the factor scores from the analysis based on the overall means of the structural data for the ten countries under study here are used (right-hand section in table 5.1). It will be interesting to see how the structural level links to the content level. This connection has rarely been tested so far (see chapter 2). Obviously, only the relationships between the media function scores of the structural level and their counterparts on the content level are estimated, i.e. between the vertical function on both levels and the horizontal function on both levels, respectively. Since the horizontal level is composed of two factors on the structural level, the mean of the two scores is used. Generally, I expect positive effects of the structural on the content level.

Second, media or news cultures more broadly are also identified by Hallin and Mancini (2004). As described in chapter 2, they develop three models of media systems: the liberal model, the democratic corporatist model and the polarized pluralist model. Most of the ten countries examined here are included in Hallin and Mancini's (2004) classification and they represent all of the three models, which is partly why they were selected in the first place (see chapter 4). Hence, it makes sense to use the three models as dummy variables in order to analyze whether they can explain differences in media content performance in addition to outlet-specific parameters.

It is difficult to formulate clear-cut theoretical assumptions about the impact of the three models on media performance on the content level. Nevertheless, it might be argued that the vertical function should be better fulfilled in liberal countries, especially in terms of the amount of information. Liberal models are known for a strong tradition of investigative journalism which should benefit the media watchdog function inherent in this first component of the vertical function. Moreover, liberal models tend to have majoritarian electoral systems, which are

usually associated with fierce electoral campaigns and thus probably a higher share of politically relevant news in general. Further, because of the related confrontational two-party logic of this political system, both the government and the strong opposition it faces have incentives to discredit each other and disclose malpractice within the other camp. This might again help the media to provide citizens with critical information.

As for the horizontal function, two hypotheses are possible. On the one hand, democratic corporatist countries are likely to fare better. Due to their proportional electoral system and consociational character they have a strong culture of power sharing. This might spill over into the media sphere and lead to a higher diversity of political parties in the news. On the other hand, alongside investigative journalism, the norm of journalistic objectivity is an early acquisition of the liberal model countries. Thus, while the other two models are still characterized by rather high political parallelism according to Hallin and Mancini (2004), the widespread neutrality of media outlets in the liberal model could result in a less biased, i.e., more diverse and balanced coverage of public discourses. Moreover, it might be easier to strike a balance in the two-party systems usually found in majoritarian democracies, and thus liberal countries, than in multi-party systems.

Third, like in chapter 5, the two Lijphart (1999) dimensions – the executives-parties dimension and the federal-unitary dimension – are also used as explanatory variables in this chapter. Media content performance should not only be influenced by media systems and news cultures but also the political-institutional context. Media systems and the institutional setting are of course not unrelated, as both the previous chapter and the previous paragraph have demonstrated. Hence, the theoretical expectations for the executives-parties dimension closely correspond to the ones just discussed with respect to the Hallin and Mancini (2004) models. To remember, higher values on the executives-parties dimension are associated with more consensus democracy. The effect of the executives-parties dimension on the two components of the vertical function is therefore supposed to be negative, whereas it could be either negative

or positive for the horizontal function. As for the federal-unitary dimension, higher values stand for a more extensive division of power as well. For this reason, we might assume a positive impact on all three factors shown in table 6.1. The vertical function should be better fulfilled in countries with strong checks and balances between the constitutional branches as well as other veto players. On the one hand, this should make it more difficult for office-holder to hide their abuses of power. On the other hand, public attention should be distributed more evenly across different political institutions if the executive is less dominant. In addition, a higher degree of power sharing in terms of the federal-unitary dimension might again translate into a more diverse representation of interests in the press coverage, i.e., a better fulfillment of the horizontal media function.

Finally, two further country-specific indicators are used as control variables. The first is a dummy variable reporting whether a country has held a national election during the year under study. This applies to Austria, Canada, New Zealand and the United States. It is necessary to control for elections since media coverage during electoral campaigns probably differs markedly from media coverage in other phases of the political process. More specifically, the scores for the first component of the vertical function can be expected to be higher during election campaigns. Political news coverage is likely to be both richer and more critical since political candidates and parties have to be presented and evaluated. Similarly, the balance among political parties as required by the horizontal function should be better because smaller parties and their campaign efforts receive more space in the media than they would otherwise, in order to provide voters with an overview of all electoral alternatives. The second component of the vertical function, however, is supposed to suffer during election campaigns, as media attention shifts to the parliament and the government at the expense of the judiciary and the public administration.

The second control variable measures a country's level of corruption by the Transparency International's Corruption Perceptions Index (CPI) on a scale from 0 to 10.[62] The original scale was reversed so that higher values indicate more corruption. This indicator will only be used in the analyses predicting the amount of critical political information, the first component of the vertical media function. This is because the extent of critical media coverage accusing political incumbents of malpractice could be related to the actual prevalence of corruption in the respective country. The effect, however, might go both ways. On the one hand, critical media coverage should be more frequent in contexts where more corruption takes place. This would of course be in line with the idea of media acting as watchdogs as required by the vertical media function, but it could also simply reveal that experts, having to rate how corrupt their country is, turn to media coverage about the issue. On the other hand, it could also be argued that media coverage about official misconduct is rare precisely because corruption is high and journalists are part of the scheme. This mechanism, however, is less likely to be at work in the ten established democracies studied here.

The country-specific, i.e., macro-level variables were 'individualized' in the sense that all newspapers from a country received the same values of the macro-level variables. I am aware that this is not an entirely appropriate approach since it does not account for the multilevel structure of the data. However, estimating multilevel models with only four to six cases on the lower level nested into only ten cases on the higher level would be even less adequate.

Predicting media performance with regard to the amount of political information

Having discussed the independent variables and their expected impacts, the following tables 6.3 to 6.5 show the regression results predicting the scores of each of the three factors in table 6.1. Every table is composed of four models. The first three present the results of the individual-level and different sets of the country-specific variables. This was necessary because of

[62] http://www.transparency.org/policy_research/surveys_indices/cpi (08/28/2012).

the rather high correlations between some of these independent variables and because the appropriateness of specifying models with all independent variables on the basis of 50 cases is questionable. Nevertheless, the fourth model always estimates the influence of all independent variables jointly.

Table 6.3 *Explaining vertical media function performance: amount of information*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Tabloid newspaper	-0.406	(0.295)	-0.348	(0.222)	-0.326	(0.256)	-0.427	(0.188) *
Regional newspaper	-1.038	(0.263) ***	-0.687	(0.240) **	-1.028	(0.263) ***	-0.592	(0.203) **
Leftist newspaper	-0.031	(0.269)	0.415	(0.234) +	0.170	(0.270)	0.232	(0.199)
Independent newspaper	-0.065	(0.253)	0.079	(0.222)	0.147	(0.261)	0.104	(0.191)
Circulation in 10'000	-0.003	(0.002)	0.000	(0.002)	0.001	(0.002)	-0.001	(0.002)
Vert. function (struct.)	0.886	(0.230) ***	-	-	-	-	0.514	(0.221) *
Democratic corporatist	-	-	-1.275	(0.219) ***	-	-	-1.595	(0.320) ***
Polarized pluralist	-	-	-1.047	(0.395) *	-	-	-0.609	(0.347) +
Executives-parties	-	-	-	-	-0.547	(0.138) ***	0.164	(0.142)
Federal-unitary	-	-	-	-	0.152	(0.079) +	0.137	(0.077) +
Election year	0.647	(0.218) **	0.529	(0.193) **	0.515	(0.226) *	0.457	(0.167) **
Corruption	0.387	(0.155) *	0.461	(0.166) **	0.089	(0.165)	0.370	(0.147) *
Constant	2.550	(1.299) +	4.189	(1.433) **	0.527	(1.397)	3.076	(1.263) **
Model Properties								
R^2	0.610		0.714		0.621		0.817	
Adjusted R^2	0.534		0.650		0.536		0.758	
N	50		50		50		50	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, + $p \leq 0.10$. Reference categories: broadsheet newspaper; rightist newspaper; liberal model.

Table 6.3 displays the models estimated to explain newspapers' performance with regard to the first component of the vertical function – the amount of critical political information. Just looking at the effects of the first five variables, which reflect newspaper characteristics, it becomes clear that only the regional newspaper dummy has a significant coefficient across all four models. And since it is negative, this means that regional or local newspapers score considerably worse on the first component of the vertical function than broadsheet newspapers. Interestingly, tabloids do not differ in their performance of the vertical function compared to

broadsheet newspapers, which – as argued above – might indicate that tabloids may play an important role as public watchdogs in contemporary democracies. However, in model IV tabloid newspapers have a significant negative coefficient, which suggests that they do perform somewhat worse than broadsheets after all. In addition, according to model II, leftist newspapers apparently provide a higher amount of critical political information than their rightist counterparts although the statistical significance is very weak and the variable has no significant coefficient in any of the other three models.

Moving to the country-specific variables, model I shows that the scores for the vertical function on the structural level have a strong positive impact on the vertical function on the media content level. This result is quite remarkable. It supports the theoretical assumption that there is a positive link between the vertical function on the two different levels of analysis. Hence, when the access to different channels of information is more widespread within the population, newspapers also provide more and especially critical information about political affairs. Moreover, in substantive terms, the effect is larger than the effect of regional newspapers. All else equal, regional newspapers are estimated to score 1.038 or about 24 percent lower on the first component of the vertical function. To compare, the predicted difference in newspapers' fulfillment of the first vertical function component between the worst and best performing countries in terms of the structural vertical function is about 44 percent.[63]

The other two macro-level variables in model I also have significant relationships with the dependent variable. As expected, press coverage is more in line with the normative requirements of the vertical media function during election years, suggesting that citizens receive more information about political affairs and the behavior of incumbents during election campaigns. This effect is highly significant in all four models and considerably large. But its

[63] 1.038 equals about a fourth of the dependent variable's scale, which has a range of 4.369. The range of the structural performance of the vertical function is 2.170. Multiplied by the variable's coefficient (0.886), this gives 1.923, which is about 44 percent of 4.369.

magnitude varies somewhat and never reaches the size of regional newspapers. In this case, the coefficients are directly comparable because both are dummy variables. Corruption also has a significant impact on the amount of critical information provided by newspapers in three out of four regression models. The positive coefficients indicate that higher corruption is indeed associated with higher scores of the first component of the vertical media function. It remains unclear whether this means that media have more critical news to report in countries that are more prone to corruption or that experts rate countries as more corrupt when the press is more critical of office-holders. Either way, the results point to the validity of the content analysis data. As discussed in chapter 4, the content analysis approach adopted in this study only registers the co-occurrence of keywords for malpractice and political actors in a news unit, but not their relationship. These indicators therefore capture media coverage of malpractice *by* political actors only approximately. The results just presented with respect to the corruption index, however, suggest that the indicators are valid and measure what they are supposed to measure.

Model II includes the variables for the Hallin and Mancini (2004) models instead of the vertical function from the structural level. The figures show that both have a significant impact. And since they are negative, this means that the press from liberal countries performs better with regard to the first component of the vertical function than the press from democratic corporatist and polarized pluralist countries. This finding is very much in line with the expectations formulated above. Furthermore, the democratic corporatist variable does not only have the most significant but also the largest effect in the model. Compared to regional newspapers, the effect is almost twice as strong and the predicted difference in vertical function performance between the liberal and the democratic corporatist model is about 29 percent.

Model III introduces the two Lijphart (1999) dimensions and compares their influence on the first component of the vertical media function to the influence of the newspaper variables. Interestingly, the estimates for both dimensions are significant, although only marginally so in

the case of the federal-unitary dimension. And as argued above, the executives-parties dimension has a negative effect on the dependent variable whereas the federal-unitary dimension is positive. Hence, the press conveys more political information in general and more critical news of political incumbents in particular in majoritarian democracies, where single parties dominate the executive and are challenged by a strong opposition camp. Likewise, more official misconduct is exposed and publicized in political systems with strong checks and balances. The executives-parties effect, however, is not only more significant but also seems to be much more substantial. In fact, it is much larger than the impact of regional newspapers as well. While the latter only accounts for 24 percent of the dependent variable's range, the predicted maximum effect of the executives-parties dimension is 39 percent.[64]

The executives-parties dimension is no longer statistically significant when all country-level variables are combined (see model IV). The vertical function from the structural level and both Hallin and Mancini (2004) models, by contrast, are still significant and largely outweigh the effect of regional newspapers.

In sum, the country-specific variables have larger effects than the newspaper-specific variables in all four models. This supports the assumption that the variance of media performance on the content level is higher between than within countries, at least with regard to the normative requirement of providing a high amount of critical political information. Finally, briefly considering the properties of the regression models in table 6.3, it can be observed that all have satisfying model fits. Especially when controlling for the democratic corporatist and the polarized pluralist models, the variance of the dependent variable is explained to high degrees.

[64] The range of the executives-parties dimension is 3.150. Multiplied by the variable's coefficient (-0.547), this gives 1.723, which equals 39 percent of 4.369 (the dependent variable's total range).

Predicting media performance with regard to the balance of political information

Table 6.4 presents the OLS regression results for the second component of the vertical media function – the balance of political information.

Table 6.4 *Explaining vertical media function performance: balance of information*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Tabloid newspaper	-0.314	(0.317)	-0.166	(0.306)	-0.210	(0.317)	-0.251	(0.280)
Regional newspaper	-0.104	(0.321)	-0.394	(0.332)	-0.228	(0.325)	-0.242	(0.304)
Leftist newspaper	-0.005	(0.329)	-0.027	(0.323)	-0.020	(0.335)	-0.205	(0.298)
Independent newspaper	0.116	(0.304)	-0.085	(0.304)	0.060	(0.305)	-0.211	(0.281)
Circulation in 10'000	0.005	(0.003) $^{+}$	0.008	(0.002) ***	0.008	(0.002) **	0.005	(0.003) *
Vert. function (struct.)	0.440	(0.280)	-	-	-	-	0.888	(0.325) **
Democratic corporatist	-	-	0.498	(0.301)	-	-	-0.119	(0.478)
Polarized pluralist	-	-	0.970	(0.445) *	-	-	1.634	(0.448) ***
Executives-parties	-	-	-	-	0.120	(0.160)	0.589	(0.249) *
Federal-unitary	-	-	-	-	0.105	(0.095)	-0.028	(0.109)
Election year	-0.961	(0.258) ***	-0.643	(0.265) *	-0.863	(0.260) **	-0.585	(0.246) *
Constant	-0.187	(0.283)	-0.228	(0.264)	-0.023	(0.246)	-0.680	(0.313) *
Model Properties								
R^2	0.401		0.441		0.402		0.580	
Adjusted R^2	0.301		0.332		0.286		0.458	
N	50		50		50		50	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$. Reference categories: broadsheet newspaper; rightist newspaper; liberal model.

Quite obviously, the scores of this second factor (see table 6.1) are more difficult to explain. On the one hand, this is reflected by the fact that the proportions of explained variance are considerably smaller in table 6.4 compared to the previous regression models (the highest adjusted R^2 is 0.458). On the other hand, fewer variables exhibit significant coefficients.

As for the outlet-specific variables, only newspaper circulation significantly affects media performance in all four models. Accordingly, the larger and supposedly more resourceful a newspaper is, the better it is able to establish a balanced coverage of different political institutions and to cover all stages of and actors involved in political processes with greater regularity. Ceteris paribus, the predicted difference between the newspaper with the lowest (41'000)

and the highest circulation (2'986'000) in the sample is 2.422 in models II and III, which corresponds to over two thirds of the dependent variable's scale (70 percent). [65] In model I, however, circulation is only marginally significant and also has a smaller estimate.

Almost none of the country-level variables of interest explain the variation in the second component of the vertical media function in the regression models I to III. No effects are found for structural media performance or the Lijphart (1999) dimensions. Thus, the respective theoretical expectations have to be rejected. Only the polarized pluralist dummy turns out to be statistically different from its reference category, the liberal model. Hence, newspapers from the polarized pluralist country France perform, on average, better in terms of the balance of political institutions in the news than papers from all the other countries. The magnitude of this effect is nowhere nearly as high as newspaper circulation though.

In addition to the polarized pluralist model, elections again have a significant impact on vertical function performance in all four models. But contrary to the first component, the relationship is now negative. Quite plausibly, media focus more on political incumbents in legislative and executive offices and neglect the judiciary and the public administration during election campaigns. Nevertheless, the relative impact of elections is also not as substantial as the impact of newspaper circulation.

Finally, when all the macro-level variables are combined in model IV, their cross-combinations seem to lead to a much larger impact of the polarized pluralist models as well as significant effects for the structural-level vertical media function and Lijphart's (1999) executives-parties dimension. Contrary to the separate models I to III, each of these three determinants is predicted to affect the dependent variable more strongly than newspaper circulation in model IV. Both of the findings contradicting those from models I and III can be explained by the polarized pluralist variable in model IV, which is essentially a dummy variable for the

[65] The dependent variable has a range of 3.453.

French cases. While these score high on the dependent variable, the second component of the vertical media function on the content level, France also happens to have rather low values for the vertical media function on the structural level as well as the executives-parties dimension. For this reason, the French cases neutralize the otherwise positive effects of these two predictors in their respective separate models I and III. But if they are combined with the polarized pluralist variable and France is thereby controlled for, like in model IV, the positive relationships emerge.

In a nutshell, differences in newspapers' performance of the second component of the vertical function seem to be more determined by individual features, namely their size in terms of circulation, than the news culture of their country of origin. However, the rather low model fits raise the suspicion that there must be other factors not considered here which might explain how newspapers perform with regard to the balance of information about political institutions in their news coverage.

Predicting media performance of the horizontal function

Finally, table 6.5 below shows the regression results for the third factor in table 6.1, which measures newspapers' fulfillment of the horizontal media function in their press coverage.

Just as observed for the first component of the vertical function, regional newspapers have significantly lower values on the horizontal function than the broadsheet or quality press in all four regression models. However, the effect is somewhat weaker here compared to table 6.3 and only marginally significant in models I and III. The percentage of the horizontal function's value range that is explained by the type of newspaper (regional vs. broadsheet) varies between a minimum of 14 percent in model III and a maximum of 22 percent in model II.[66]

[66] The coefficient of regional newspaper is -0.571 in model III and -0.869 in model II, which equals about the mentioned percentages relative to the dependent variable's full scale range (3.989).

Apart from this characteristic, it does not matter if and what kind of political orientation a newspaper has or how big it is in terms of circulation.

Table 6.5 *Explaining horizontal media function performance*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Tabloid newspaper	-0.320	(0.322)	-0.327	(0.293)	-0.380	(0.300)	-0.367	(0.273)
Regional newspaper	-0.581	(0.331) $^{+}$	-0.869	(0.317) **	-0.571	(0.308) $^{+}$	-0.861	(0.299) **
Leftist newspaper	0.479	(0.338)	0.385	(0.308)	0.379	(0.317)	0.200	(0.293)
Independent newspaper	0.173	(0.316)	0.159	(0.291)	0.284	(0.294)	0.333	(0.278)
Circulation in 10'000	0.001	(0.002)	0.001	(0.002)	0.002	(0.002)	-0.001	(0.002)
Horiz. function (struct.)	0.495	(0.199) *	-	-	-	-	0.754	(0.365) *
Democratic corporatist	-	-	1.170	(0.288) ***	-	-	1.268	(0.464) **
Polarized pluralist	-	-	0.349	(0.425)	-	-	-0.602	(0.308)
Executives-parties	-	-	-	-	0.225	(0.152)	-0.834	(0.376) *
Federal-unitary	-	-	-	-	0.258	(0.090) **	0.196	(0.089) *
Election year	0.694	(0.262) *	0.992	(0.253) ***	0.818	(0.246) **	0.373	(0.345)
Constant	-0.213	(0.245)	-0.693	(0.252) **	-0.479	(0.233) *	-0.489	(0.280) $^{+}$
Model Properties								
R^2	0.369		0.490		0.464		0.593	
Adjusted R^2	0.264		0.391		0.359		0.475	
N	50		50		50		50	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$. Reference categories: broadsheet newspaper; rightist newspaper; liberal model.

Turning to the macro-level variables, model I indicates that a country's score on the horizontal function from the structural level has a significant and positive impact on how well its press complies with the horizontal function on the content level. Again, the finding that this relationship between the two levels of analysis exists is quite striking. A high diversity within media systems, both in quantitative and in qualitative terms, is indeed associated with a higher diversity and balance of political parties in the media coverage, as expected. To recapitulate, quantitative media diversity is composed of the number and import of newspapers while qualitative media diversity consists of the measures for internal and external diversity of opinions within the print sector. The independent variable used in the regression models in table 6.5 is the mean of the respective two factor scores.

Furthermore, the magnitude of this variable's effect is substantial. Moving from the lowest to the highest structural media performance of the horizontal function among the ten countries examined here leads to a predicted increase of 1.312 scale points in the horizontal function on the content level. This equals about a third of its value range (33 percent) and thus a much stronger impact than the one of regional newspapers. It is also stronger than the effect of election years, which again significantly affects the dependent variable in all models except model IV. Hence, print media cover political parties more equally and contrast their positions more directly (by citing various parties within the same article) during election campaigns. This corresponds to the theoretical assumption discussed above and might even give reason to optimism. With the exception of model IV, elections have a larger impact than regional newspapers as well.

The media system also has a statistically significant effect on the horizontal function in model II. Media systems or cultures are here measured by the Hallin and Mancini (2004) models. The results suggest that print outlets from democratic corporatist countries perform better than their counterparts from liberal countries. By contrast, polarized pluralist models, i.e., France as its only representative in this study, do not significantly differ from liberal models. Furthermore, the impact of the democratic corporatist variable is in fact the strongest and most significant in the model. Accordingly, on average, press coverage from democratic corporatist countries scores about 29 percent higher on the horizontal function than press coverage from liberal countries. This finding supports the first hypothesis posited above with regard to the link between the media content performance of the horizontal function and the Hallin and Mancini (2004) models. The power sharing culture of democratic corporatist countries indeed seems to rub off onto the press.

As for the two Lijphart (1999) dimensions, model III shows that the federal-unitary dimension exhibits a significant positive relationship with the horizontal function on the content level which is more substantial than the impact of regional newspapers. Again, this is in line with

the theoretical expectations and further points to the fact that dividing political power among various actors enhances the performance of the press with regard to the horizontal function. However, given both this finding and the results and interpretation of model II in the previous paragraph, it is somewhat surprising that no effect for the executives-parties dimension can be observed in model III.

The positive effects of the structural-level horizontal function, the democratic corporatist model and the federal-unitary dimension also persist when all country-specific indicators are combined in model IV. Moreover, the former two are still larger in substantive terms than any of the newspaper-specific predictors. Interestingly, and contrary to model III, the executives-parties dimension has a significant and negative coefficient in model IV with a magnitude larger than the horizontal function of the structural level or the democratic corporatist model. And although it is possible that a good balance between and confrontation of parties is easier to establish in majoritarian democracies with two-party systems, this result totally contradicts the effect of the democratic corporatist model. A closer inspection reveals that this seemingly puzzling result is mainly due to Austria, Germany and especially Switzerland. These countries score high on the executives-parties dimension and also generally on the dependent variable, the horizontal media function on the content level. Hence, these countries cancel out the negative relationship between the Lijphart (1999) dimension and the dependent variable of the remaining cases in model III. But when controlling for the democratic corporatist variable, which consists of exactly these three countries, in model IV, the negative effect of the executive-parties dimension surfaces.

Before concluding, it needs to be pointed out that none of the model fits in table 6.5 is particularly high. This could mean that important explanatory factors have been left out of the equations. Nevertheless, the discussion of the four regression models has made it clear that media content performance with regard to the horizontal function differs more strongly across coun-

tries than across newspaper types. Hence, print media from the same country are quite homogenous in their capacity or willingness to provide a high diversity of political viewpoints within public discourses. The same conclusion applies to the predictions of the first, but not the second component of the vertical function. The latter is mainly determined by a newspaper's circulation. The other two dimensions of media performance on the content level, however, are more strongly related to country-specific characteristics, namely the Hallin and Mancini (2004) models, the Lijphart (1999) dimensions and/or – most remarkably – media performance on the structural level. This is in line with the interpretation of the descriptive statistics in section 6.2.1 which also pointed to the importance of the country context.

6.3 Finding country patterns of media content performance

So far, the variance of media performance across newspapers and countries was only analyzed for one media function or latent dimension at a time. In a next step, the factor scores from table 6.1 will be combined to look at the interactions of the vertical and the horizontal function in the ten countries under study. Again, it will be of interest to see whether newspapers within the same country display similar configurations and whether specific country patterns can thus be identified. This section therefore also focuses on evaluating which countries perform well and which do not. For these purposes, I first present a bivariate graphical analysis to give a general overview of different country patterns. Second, I will try to find country types by means of a cluster analysis.

6.3.1 Graphical analysis

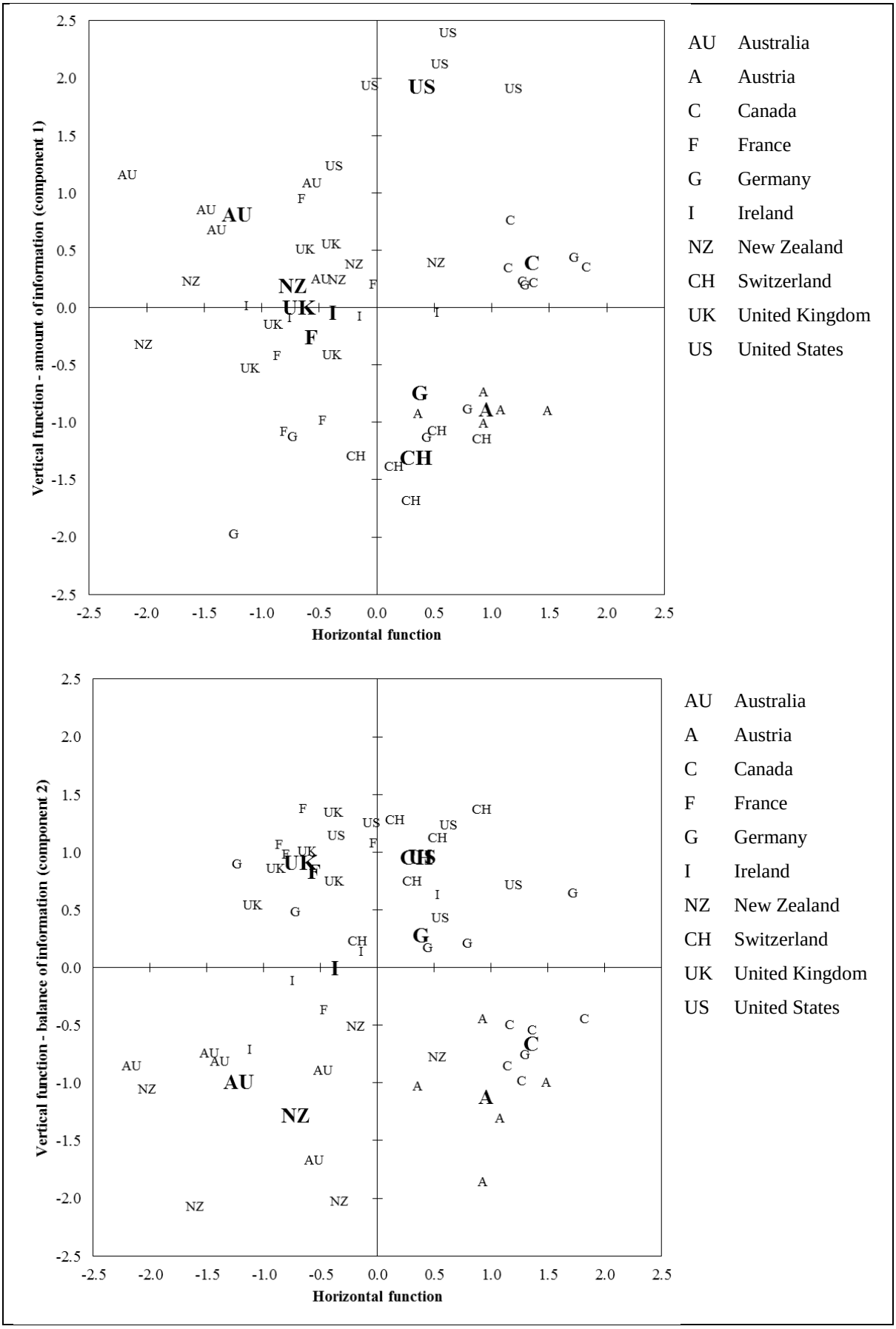
Plotting the newspapers into a two-dimensional space according to their factor values allows for a graphical examination of whether certain country patterns regarding the media's fulfillment of the vertical and the horizontal function can be found. Since two sub-dimensions emerged for the vertical function, figure 6.1 below presents two graphs. In the first the horizontal function (factor 3 in table 6.1) is pitched against the first vertical function component

(factor 1). The second graph, by contrast, plots the second component (factor 2) onto the y-axis. In order to enhance readability, the newspapers are represented by letters instead of data points in the graphs. These indicate the first letter(s) or abbreviations of their country of origin. Furthermore, the means of the four to six newspapers in every country are displayed as larger and bold letters. This gives an indication of a country's aggregate position. In addition, country-specific plots can be found in the appendix (see figure A6.1).

First of all, the scatter plots illustrate that there is quite some variation among newspapers with regard to how well they score on the different dimensions. This shows in a straightforward way that there are substantial differences in the degree of fulfillment of the democratic media functions between newspapers. Moreover, the four-fold charts suggest that newspapers from the same country often cluster in the same or similar quadrants, indicating that specific country patterns or varieties of democratic media performance exist.

For example, looking at the first plot, the cases from Australia are clearly located in the upper left quadrant. It therefore seems that the Australian press performs quite well with regard to the first component of the vertical function, i.e., the amount of critical political information provided to citizens, but scores rather low on the horizontal dimension. In fact, Australia's "Sydney Morning Herald" (-2.166/1.166) displays the lowest factor score on the horizontal function of all the newspapers in the sample. The aggregate values of New Zealand and the United Kingdom can be found in the same part of the scatter plot even though very close to its borders. This is because their respective individual cases are a little more spread out and partly also fall into the bottom left or upper right quadrant. This is especially true for New Zealand where the "Otago Daily Times" (-2.026/-0.308) performs significantly worse on both dimensions than the "Dominion Post" (0.521/0.405).

Figure 6.1 *Newspapers' positions on the vertical and the horizontal function*



Notes: plots based on factor scores from table 6.1; larger and bold letters represent the mean of the newspapers from the respective country.

Moving to the upper right, we also find a very clear-cut case there. All newspapers from Canada are situated quite closely to each other and seem to have an above average degree of fulfillment of both the vertical and the horizontal function. This also applies to three of the five U.S. newspapers, while the other two exhibit slight deficits with respect to the horizontal function. So although on the aggregate the United States fall into the same quadrant as Canada, we might argue that press coverage in the United States is a mix of the Australian and Canadian type. Furthermore, it is noteworthy that – with one exception – the American press seems to perform exceptionally well on the vertical media function, or at least its first component. All U.S. newspapers score high above the print media from the nine other countries. In particular, the "New York Times" (0.622/2.406) reaches the highest value of all 50 newspapers in the sample on this latent variable. But even the 'outlier' case in the American sample, which turns out to be the tabloid "New York Post" (-0.365/1.246), scores higher than any newspaper from another country on the y-axis.

The bottom right part of the scatter plot represents media organizations which comply with the horizontal but not with the vertical function in their news coverage. It is most notably occupied by the Austrian and Swiss cases, which all perform quite similarly. At least with respect to Switzerland, this configuration of the two media functions is very much in line with previous research which has shown that Swiss newspapers convey little criticism of the government but tend to provide a good balance of and dialogue between different political camps, especially in direct-democratic campaigns (Kriesi et al. 2012: 226, 229f.). Interestingly, the only paper from Switzerland that scores below 0 on both functions in the first chart of figure 6.1 is the tabloid "Blick" (-0.178/-1.284). Similarly, the Austrian case which falls somewhat behind the rest of its group regarding the horizontal function is the tabloid in this country sample, the "Kronen Zeitung" (0.356/-0.910). In addition to Austria and Switzerland, the aggregate score of Germany is located in the bottom right as well. Thus, Germany's press could also be considered as belonging to this category. However, a closer look at the six individual

German cases reveals that they are more dispersed than those of any other country and that only two of them are actually placed close to their country mean. The German newspapers span across three quadrants and cover extremes such as the "Rheinische Post" (-1.239/-1.963) or the "F.A.Z. – Frankfurter Allgemeine Zeitung" (1.715/0.451). The former has the worst score on the first component of the vertical function and does not exactly succeed with respect of the horizontal function either. The latter, by contrast, comes in second on the horizontal dimension, after the Canadian "Toronto Star" (1.823/0.364), and reaches positive values for the vertical function as well. Obviously, there are large differences between different types of newspapers in Germany, which have already surfaced in the regression analyses in the previous section. While regional newspapers show deficiencies on the vertical or both functions, the broadsheets or quality press performs well (the second German case falling into the upper right part is the "Süddeutsche Zeitung" (1.292/0.209)).

The newspapers from France also vary quite considerably over the scatter plot. The two more high-profile news outlets can be found in the top left quadrant of the graph, representing cases with scores above average on the first component of the vertical function but below average on the horizontal function ("Le Monde" (-0.650/0.958) and "Le Figaro" (-0.032/0.217)). Just like in Germany, the regional press lies at the lower end of the distribution, however. Overall and although not a clear-cut case either, the French press system represents the bottom left quadrant and should therefore be characterized by a comparatively low media content performance in general. France receives company from Ireland in this area. Two of the four Irish newspapers indeed have negative values on both axes, while this applies only for either one of the functions for the other two. Moreover, the vertical function scores are very close to 0 in all four Irish cases even, which has already been discussed in section 6.2.1. On the aggregate, despite being located in the bottom left, Ireland is a borderline type that is also very close to its British neighbor as well as New Zealand.

The country patterns just discussed are interesting and they also reveal some congruence with the classification of the ten countries according to Hallin and Mancini's (2004) models of media systems, which partially already emerged in the regression analyses in section 6.2.2. First of all, it can be noted that all of the liberal media systems – also referred to as the North Atlantic model by Hallin and Mancini (2004) – fare comparatively well on the first component of the vertical function (y-axis) and are therefore found in or close to the upper half of the scatter plot. Remembering that this component stands for the amount of critical media coverage about political decision-makers, this finding makes good sense. As already mentioned, the tradition of investigative journalism emerged from and remains strong in the Anglo-Saxon world, which is why a better fulfillment of the media's watchdog role in these countries is hardly surprising.

Liberal countries are more divided when it comes to the horizontal dimension (x-axis). While Canada and the United States also perform quite well in this respect, most newspapers from the other liberal media systems score below average here. This division might be explained by the fact that while the principle of political neutrality and balance is an important credo of North American journalism, this applies less to liberal systems in Europe and Oceania because of their strong partisan press. This is exactly why Hallin and Mancini (2004) did not consider the United Kingdom to conform to the liberal ideal type. Moreover, the graph seems to support the assumption that Australia and New Zealand, which were not included in Hallin and Mancini's (2004) study, could be classified as liberal media systems. However, they have more in common with the British press than its counterparts across the Atlantic. Somewhat of an exception among the liberal countries is Ireland. Hallin and Mancini (2004) suggested this country to deviate less from Canada and the United States than the United Kingdom. This is not evident in my data, however. In the graph, Ireland is closely situated to Great Britain, the mother country of its institutions, but also seems to be related to France and represents the same broad type.

Looking at Austria, Germany and Switzerland, i.e., the countries which belong to the democratic corporatist or North/Central European model, it is striking that they are all located in the same quadrant and very closely to each other.[67] This indicates that the democratic corporatist model can be characterized, on the one hand, by a good performance regarding the horizontal media function. This was already shown in the regression models and explained by the respective countries' tradition of consensus and power sharing (Lijphart 1999), leading the media to more broadly and more equally integrate various political forces. On the other hand, democratic corporatist systems seem to score rather low on the vertical component 1. This could be due to the greater role played by the state and thus the closer ties between journalism and the political sphere in these countries, causing the media to serve more as lapdogs rather than watchdogs.

Coming back to France, the only representative of the polarized pluralist or Mediterranean media system, we can see that it occupies the fourth quadrant and can therefore be distinguished from all the other cases too. Hence, polarized pluralist media systems differ from the other models in that they apparently fulfill neither the horizontal nor the vertical function very well. However, as mentioned before, the French newspapers examined show quite some variation in their factor scores and, on the aggregate, France lies not too far from 0 on both dimensions. This might be taken as evidence that France is not a clear-cut case of the polarized pluralist model, as expected by Hallin and Mancini (2004). Moreover, given that Ireland also falls into this part of the scatter plot, we could put into question whether the Mediterranean model does indeed display a distinct pattern of democratic performance or, by contrast, whether Ireland should really be considered an example of the liberal model instead the polarized pluralist type of media system.

[67] However, as discussed above, in Germany this is mainly true for the aggregate value because its newspapers are very dispersed.

Hallin and Mancini (2004) refrained from qualitative judgments about their three models. This means that they did not explicitly highlight a specific hierarchical order or ranking. Implicitly, however, they argue that media systems tend to move from the polarized pluralist to the liberal type, which might be read as a suggestion that the liberal model is the 'best' system. Such an interpretation is partly confirmed by the data at hand. The polarized pluralist country France can be found at the lower end, i.e., the bottom left quadrant. Countries with deficiencies in either of the two functions occupy the middle field. This applies to the democratic corporatist countries as well as the liberal borderline cases from Europe and Oceania. The best democratic media performance, i.e., the best balance of scores from both dimensions, finally, seems to be achieved in the pure liberal countries, Canada and the United States.

As already mentioned, the second plot in figure 6.1 pitches the horizontal media function (x-axis), as measured by factor 3 in table 6.1, against the second component of the vertical media function, using the scores from factor 2 (y-axis). The second component assesses the balance of information about political institutions. This graph gives quite a different picture than the first scatter plot. First of all, it is visible that the newspapers seem to be less dispersed on the y-axis, especially on its upper end. Most notably, the French and German cases vary less with respect to component 2 than component 1 of the vertical function. Second, while some countries remain where they were in the first graph of the four-fold matrix, most change their position by moving to the other side of 0 on the vertical axis. Still in the same or similar location as before are the newspapers from the United Kingdom, the United States, Austria and Ireland. Those from the other six countries shift rather significantly.

Thus, France can now be found in the upper left quadrant, which is characterized by a good performance of the vertical function's second component but a below average score on the horizontal function. Germany and Switzerland switch places with Canada. While they move

to the upper right due to their high values on both dimensions, Canada falls into the bottom right category, according to which only the horizontal function is fulfilled to comparatively satisfying degrees. In fact, Switzerland and the United States now occupy almost the exact same aggregate position. Finally, Australia and New Zealand represent the bottom left quadrant, which means that they score below average on both media functions. Contrary to the first graph, these two countries therefore clearly diverge from the other Anglo-Saxon countries in the sample in the second graph of figure 6.1.

Hence, with the exception of Ireland, where the individual newspapers are now somewhat widely distributed, there are still distinct patterns in the sense that newspapers from the same country group in the same quadrant. However, these country differences in the second plot seem much more difficult to explain, especially in light of Hallin and Mancini (2004) and their three models. This has already been observed in the regression analyses, where few of the country-specific variables had a significant effect on the second component of the vertical function and where the model fits were rather poor. The highest performance on both functions can now be ascribed to the democratic corporatist countries except Austria as well as – again – to the United States. France and the United Kingdom score high on the second component of the vertical media function but rather low on the horizontal dimension. As for the other three liberal countries, Ireland is really found in the middle. Canada joins Austria in the bottom right quadrant whereas Australia and New Zealand fall below average on both dimensions. These results are not necessarily intuitive. It is for example surprising that the two presidential systems France and the United States fare well with respect to the balance of media coverage about the different branches of government. One would have expected the media attention in these countries to be more directed towards the government than the other constitutional powers. At least in the case of the United States, this might be explained by the strong checks and balances which are also an important feature of the U.S. political system. But as for France, it seems unclear why it is the “Le Monde” (-0.650/1.390) which reaches the high-

est value of all the 50 newspapers in the sample on the vertical axis. The optimum of the two functions, however, seems to be achieved in slightly different constellations by the Swiss "Neue Zürcher Zeitung" (0.912/1.138) and the German "F.A.Z. – Frankfurter Allgemeine Zeitung" (1.715/0.658). The lowest value on the vertical component is represented by "The Waikato Times" (-1.609/-2.063) from New Zealand, and this newspaper also displays the worst combination of scores overall.

In sum, as the scatter plots have shown, there seem to be significant differences between the ten countries examined when it comes to the question of how well their press complies with the democratic standards in their news coverage, as defined by the horizontal and the vertical media functions. Again, it has been found that countries tend to be homogenous in terms of the democratic quality of news coverage that major print news organizations provide their citizens.

6.3.2 Cluster analysis

An equally inductive but less qualitative approach to identify groups of similar cases or country patterns is to conduct a cluster analysis. Still relying on newspapers as the unit of analysis, the 50 cases will be classified on the basis of the factor scores from table 6.1 for the vertical and the horizontal media function.[68] A scree plot of the distance coefficients as well as the interpretability of the cluster solutions guided the choice of the adequate number of clusters. Both clearly suggested a solution with four clusters. Table 6.6 displays the mean values of the three factor scales for each of these four clusters as well as the number of newspapers that the cluster is composed of overall and per country. Comparing the averages across clusters allows determining the particular characteristics or strengths of the respective newspaper groups. Thanks to the standardized factor scores, the clusters can be easily interpreted and compared.

[68] Like in chapter 5, hierarchical cluster analysis was performed, using the Ward linkage function and the squared Euclidean distance measure.

Table 6.6 *Characteristics and composition of the clusters*

	Cluster			
	1	**2**	**3**	**4**
Vertical function – amount of information	**1.325**	-0.147	-0.944	**0.381**
Vertical function – balance of information	**1.077**	-0.743	**0.698**	-0.919
Horizontal function	**0.028**	**1.211**	-0.189	-0.905
Number of newspapers	*9*	*12*	*16*	*13*
Cluster compositions:				
United States	5	-	-	-
Austria	-	5	-	-
Canada	-	5	-	-
Switzerland	-	-	5	-
Germany	-	2	4	-
France	2	-	3	-
United Kingdom	2	-	3	-
Australia	-	-	-	5
New Zealand	-	-	-	5
Ireland	-	-	1	3

Notes: cluster analysis based on the factor scores from the analysis shown in table 6.1; figures: average factor scores per cluster; bold figures: score > 0; grey cells: highest score per item.

Focusing on the first two clusters, we can observe one group of newspapers with peak values on the vertical but not the horizontal function, and vice versa. In addition, the smallest group, the first cluster, also exhibits an average performance of the horizontal function. The respective mean is slightly above 0 (0.028). Clusters 1 and 2 therefore seem to have a very clear profile. As for the other two clusters, the largest cluster 3 is characterized by a quite high performance of just the second component of the vertical function, whereas cluster 4 displays positive values for the first component only.

Looking at the cluster compositions, two general conclusions can be drawn from table 6.6. First, the majority of countries have a consistent pattern, i.e., their newspapers all fall into the same cluster. And even when they do not, they only divide across two of the four clusters. In addition, in Germany and Ireland, two of the four cases where newspapers are divided, there is still a clear tendency towards one cluster. This is an important finding and again provides evidence that the country context predominates over characteristics of single newspapers in determining how the press performs with regard to the theoretical functions imposed on it by

democracy theory.[69] Second, the classification of countries to the four clusters is highly congruent with the scatter plots in figure 6.1. To examine this more easily, the countries are ordered according to their most frequent cluster membership.

The first cluster accommodates the American newspapers with their very high degrees of fulfillment of the vertical media function. This could be expected, considering that the United States are the only country belonging to the upper right quadrant in both scatter plots. In addition, these five dailies are joined by two French and two British press outlets, namely the "Le Figaro" and the "Le Monde" as well as the "Daily Telegraph" and the "Daily Mail", respectively (all quality newspapers, except the last). Given that, on average, this group does not score below 0 on the horizontal function either, the respective newspapers and the United States as a whole in particular might be ascribed the best media performance in terms of the content level. It also most closely corresponds to Hallin and Mancini's (2004) liberal model, including the respective ideal case, the United States.

Cluster 2 can be characterized by a good performance of the horizontal function only and it combines the Canadian and the Austrian press, along with the two German quality newspapers "Süddeutsche Zeitung" und "F.A.Z. – Frankfurter Allgemeine Zeitung". It might come as a surprise that Canada and Austria cluster together, given that they scored on different ends of the scale for the first component of the vertical function (see figure 6.1). Obviously, their similarity with respect to the horizontal function and the second vertical component weighed more heavily in the cluster analysis. The fact that the cluster average of the first component is not that far off 0 (-0.147) is owed to the Canadian but also the two German cases. In that sense, the second group of newspapers jointly only displays serious deficiencies in terms of the second component of the vertical function. It could therefore be regarded as the second best performing group after cluster 1. Overall, cluster 2 also relates most to the democratic

[69] It is, however, a little surprising that the British cases do not fall into the same cluster since they seem to be located quite closely to each other in figure 6.1.

corporatist model by Hallin and Mancini (2004) even though Canada was classified as a liberal country by the authors.

The third cluster constitutes the largest and most heterogeneous group. It mainly includes Switzerland as well as most of the German, French and British cases. What all these newspapers seem to have in common are rather high scores on the second component of the vertical function, but not on the other two latent dimensions. The fact that Switzerland clusters with all the lower-quality, i.e., the regional and tabloid papers from Germany, France and the United Kingdom is somewhat puzzling. Because of its mostly positive values on the horizontal function, Switzerland seemed to more strongly resemble the pattern of the United States or of Austria (see figure 6.1). However, the Swiss cases do not score as high on the horizontal function as Austria and especially Canada, and they share a rather low level of the first component of the vertical function with some of the French and German papers. Nevertheless, thanks to Switzerland, the average value for the horizontal function in cluster 3 of -0.189 is not exceptionally low. For that reason, the third group of countries can be attributed the third rank of overall media content performance. As for the Hallin and Mancini (2004) models, cluster 3 can be considered as most in line with the democratic corporatist type like cluster 2. This is due to the stronger presence of newspapers from both Switzerland and Germany, which account for 9 of the 16 cases from this cluster.

Lastly, the fourth cluster consists of all newspapers from Australia and New Zealand as well as most of the Irish cases. It is interesting that the two countries from Oceania have very similar patterns. Thus, they seem to share a common press coverage culture which reflects a moderately high fulfillment of the vertical function's component 1 only and quite low scores on the other two factors. Hence, these two countries are clearly set apart from other liberal model representatives, which was already visible in figure 6.1, at least in the second graph. This might suggest that they should not be counted to this type of media system after all but rather constitute a new, distinct regional model. However, since most newspapers from Ireland are

also found in this cluster, the ties to the Anglo-Saxon world are still evident. If we aggregated the mean values of the three factors in table 6.6 for each cluster by again taking their average, cluster 4 would receive the lowest score. Thus, it can be considered the worst performing group of newspapers with regard to the normative standards of the vertical and the horizontal media function. At least one of the Irish broadsheets, however, fares somewhat better and falls into cluster 3.

6.4 Conclusion

While the previous chapter 5 focused on the structural level, the aim of this chapter was to study media performance on the content level, i.e., in terms of the press coverage of 50 daily newspapers from ten different countries. In a first step, it was tested whether the nine indicators, which were deduced from normative theory, actually measure the vertical and the horizontal media function according to the conceptual framework defined in chapter 3. In a similar vein as in chapter 5, the exploratory factor analysis in section 6.1 returned three rather than two latent dimensions. Nevertheless, this three-dimensional structure is still very much in line with the theoretical model of media content performance. While one of the factors represents the horizontal function, the vertical function divides into its two components (see table 3.1). Hence, one factor corresponds to the amount of critical information about political affairs, and the other reproduces the balance of information about the different constitutional branches as well as the public administration. In sum, both the indicators defined on the structural and the content level largely validate the theoretical conceptualization of mass media's normative role in a democracy developed in chapter 3.

The factor analysis was conducted on the basis of individual newspapers. The aim of the present study, however, is to make assumptions about differences of democratic media performance across countries. The rest of the chapter therefore dealt with the question of whether media performance on the content level is rather determined by outlet- or country-specific

characteristics and what kind of country patterns can be identified. Perhaps the most important conclusion to draw from the respective analyses is that although all of them were performed at the level of individual newspapers, not countries, the macro context does indeed always matter. Hence, countries are more or less consistent and homogenous regarding the quality of their press coverage. This has been shown in the descriptive and regression analyses of section 6.2 as well as the scatter plots and the cluster analysis in section 6.3.

At the same time, the findings also indicate that the role of specific newspaper characteristics cannot be neglected either (see section 6.2.2). Especially the distinction between regional newspapers on the one hand and broadsheet or quality papers on the other, as well as a newspaper's size in terms of circulation seems to explain some of the variation among media organizations with regard to their different scores on the two media functions.

However, country differences appear to be more important in general. Overall, country-specific variables were found to have a stronger impact on the factor scores for the horizontal and the vertical media function. A particularly striking result of this chapter is that the media performance of the horizontal function on the *structural* level has a significant and positive relationship with media performance of the horizontal function on the *content* level. The same also holds for the first component of the vertical function. In addition, the three models of media systems by Hallin and Mancini (2004) as well as Lijphart's (1999) two dimensions of democracy also exhibited significant and mostly the expected effects on some of the factor scores for media content performance. Finally, whether a country is in an election year as well as its level of corruption also seems to be decisive for newspapers' degree of fulfillment of the two normative functions. It must also be noted, however, that while the horizontal function and the vertical function's first component could be predicted reasonably well, the second component of the vertical function was largely left unexplained.

Studying and interpreting the different patterns and constellations of the dimensions of media performance in each of the ten countries was the focus of section 6.3. The typology by Hallin and Mancini (2004) proved to be a helpful frame of reference for this. A comparison of my findings from the graphical and the cluster analysis with the authors' classification suggests some congruencies. Hence, it seems that liberal countries, especially the ideal case United States, tend to fare better when it comes to the vertical media function, which requires the media to provide much and critical political information about all constitutional branches to equal degrees. This might be explained by the strong traditions of investigative journalism and checks and balances within this type. Democratic corporatist countries, by contrast, exhibit a higher performance with regard to the horizontal function but, in some cases and to lower degrees, also the vertical function's second component, which asks for a well-balanced coverage of all institutions of democratic decision-making and implementation. This might be attributed to a long-established culture of power sharing in the respective countries. As for polarized pluralist countries, no clear-cut conclusion is possible. This is mainly because only one country within my sample, namely France, represents this model. France, however, could not be clearly located within my framework, and its cases are thus distributed across two different groups in the cluster analysis. This may not come as a surprise given that France is not considered to be an ideal example of this third model by Hallin and Mancini (2004) themselves. The same holds true for the United Kingdom, which splits into two clusters and is also not regarded as a clear representative of the liberal model by the authors.

The cluster analysis revealed further deviations from the authors' famous classification. Ireland, for example, does not cluster with other liberal model states but rather constitutes a new type together with Australia and New Zealand. Moreover, Canada does not fall into the same newspaper group as its fellow liberal countries. Instead, it forms a group with cases from the democratic corporatist countries Austria and Germany. Hence, there is also no purely democratic corporatist cluster according to the content analysis data provided in this study.

To conclude, according to the findings from the cluster analysis, the following summary – and tentative – statements about the level of media content performance of the ten countries can be made. The best performance seems to be achieved by the American press, along with the two more quality newspapers from France and Britain. Austria and Canada as well as the two German quality dailies come in second. The second lowest level of media performance on the content level may be attributed to Switzerland, the regional and tabloid papers from France, Germany and the United Kingdom as well as the "Irish Times". Finally, Australia, New Zealand and three of the four Irish outlets perform worst overall. It should be borne in mind that this is a rough and simplified synopsis and does not say anything about the variance of newspapers within the same cluster though. As discussed above, especially Switzerland's position in the typology is somewhat misleading since the cluster analysis disregarded its positive performance of the horizontal media function.

PART II:

THE EFFECTS OF DIFFERENCES IN MEDIA PERFORMANCE

Chapter 7:
The impact of mass media on the quality of established democracies

The first part of this book focused on defining, measuring and analyzing democratic media performance both in terms of the structural and the content level. Building on those findings, the second part of the present study moves on to the question whether and to what extent differences in the countries' fulfillment of the vertical and the horizontal media function actually matter for the well-functioning of democratic processes.

Quite obviously, the normative requirements which are imposed on mass media and which were discussed in chapter 3 originate from the assumption that democracies rely on systems of mass communication to work properly. Similarly, most of the concerns expressed with respect to the democratic performance of mass media systems are based on the idea that when media fail to comply with their democratic role this has serious negative ramifications for democratic governance. And even though media scholars do not agree on really how bad things are (see chapter 1), they all seem to agree that the relationship between the two concepts is of substantial importance. However, as described in chapter 2, if and how media performance is empirically associated with the quality of democracy has rarely been examined in a comparative and comprehensive framework. Few of the existing cross-national studies explicitly refer to media performance on the basis of normative standards and think more broadly about its complex interaction with democratic processes. In other words, most of the comparative media research only focuses on one specific aspect of relevance to democracy like electoral participation or corruption. Part II of this book, which is composed of this and the subsequent chapter, therefore makes an attempt to explore the manifold links between media performance and various elements of democracy in a more systematic fashion. Chapter 7 derives the respective theoretical expectations and explains the data and methods used. Chapter

8 then presents the empirical analyses which are estimated to test these hypotheses. This will hopefully shed more light onto whether democratic media performance – at least as conceptualized and measured here – is something to care and worry about at all.

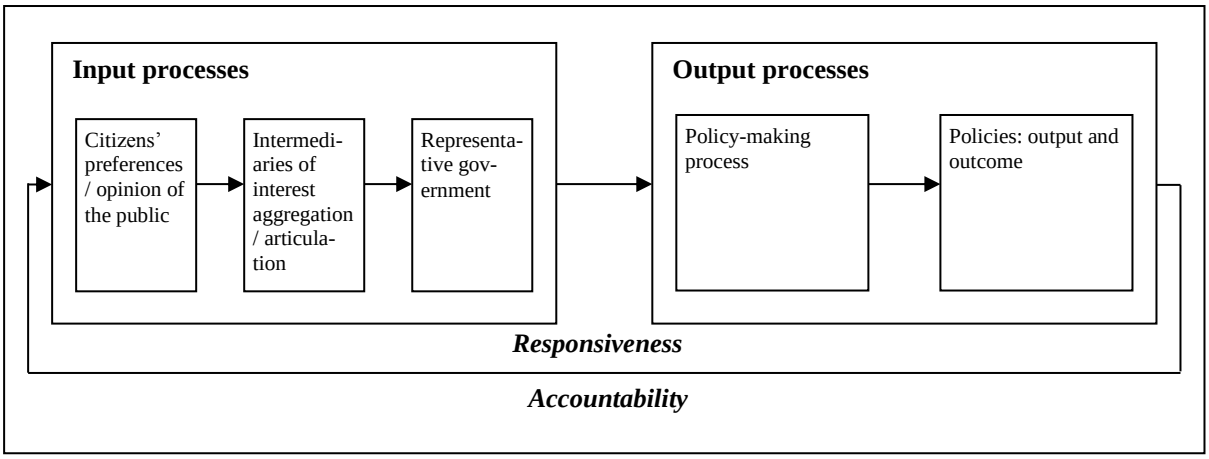
The present chapter is structured as follows. First, we need to define what conditions democracies have to meet in order to have a high quality. For this purpose, I draw heavily on the concept of the Democracy Barometer (see Bühlmann et al. 2011a, 2012). Second, based on this multifaceted concept of democratic systems and processes as well as on the theoretical model developed in chapter 3, hypotheses about the influence of media performance on four different elements of democracy are deduced. More specifically, it shall argue that a high fulfillment of the vertical media function should be especially beneficial for political participation and transparency. Horizontal media function performance, by contrast, is considered to mainly promote the strength of the civil society and the adequacy of political representation within a democracy. Finally, section 7.3 covers the data and methods used in chapter 8 to test the hypotheses.

7.1 Defining the quality of democracy

Following Scharpf (1970, 1999), the democratic process can be divided into an input and an output side. The former focuses on the constitution of representative governments while the latter focuses on policy making (Kriesi et al. 2007: 5). On the input side, the preferences and opinions of citizens are picked up, aggregated and articulated by intermediary actors such as interest groups, social movements and political parties. Parties further transform them into political programs with which they enter the electoral contest. Powell (2004a: 92, 97) calls this process "structuring choices". From this offer of choices, voters elect the political representatives according to their preferences. On the output side, the elected representatives are – sometimes in consultation with experts and other intermediary actors – responsible for decid-

ing on collectively binding laws on behalf of their constituents (Kriesi et al. 2007). This process can be illustrated by a simple model of representative democracy (see figure 1).

Figure 7.1 *Model of representative democracy (Kriesi et al. 2007: 7)*



The input and output sides are linked by the mechanisms of responsiveness and accountability. First, the political elites are supposed to consider the preferences of their voters (responsiveness). Second, if the political representatives do not act responsively and their policies are not in line with the citizens' demands, the latter have the possibility to throw the former out of office and replace them with better suitable candidates at the next election (accountability).

However, in order for these processes to work as they should, certain requirements have to be fulfilled in democratic regimes. Accordingly, Bühlmann et al. (2011a, 2012) define nine aspects which need to be optimized to guarantee a high quality of democracy.[70]

First, to actually act as citizens and to be able to form preferences independently, people need basic and effective *individual liberties* protecting them from interference by the state and by fellow citizens. In a similar vein, the *rule of law* is supposed to defend citizens from arbitrary governance in that it guarantees the equality before the law and an efficient and professional

[70] The authors actually speak of nine "functions" but in order to avoid confusion with the vertical and the horizontal media function, they will mostly be referred to as 'aspects' or 'elements' here. Moreover, these nine elements can be deduced from three fundamental principles of democracy, namely freedom, equality and control (see Bühlmann et al. 2011a).

legal system (Bühlmann et al. 2011a: 6). Third, the articulation and aggregation of citizens' wants requires a strong *public sphere* function or in other words, effective freedom of association and opinion. This means that there should be a vibrant civil society and the possibility for an open public discourse (Beetham 2004: 62). Fourth, the adequate *representation* of as many people as possible in the political arena is crucial for a high responsiveness of policy making. All members of a political community should be represented in the political system both in a substantive and descriptive sense (Mansbridge 1999; Powell 2004b; Urbinati and Warren 2008). Moreover, citizens should actually use their political rights so that effective political *participation*, in conventional as well as unconventional forms, is not only generally high but also equal across different social classes (Lijphart 1997; Rueschemeyer 2004; Teorell 2006). This should contribute to form a truly representative and responsive government. Sixth, another prerequisite for the well-functioning of democratic processes, especially for accountability, is the *transparency* of the political system. „The essence of representative democracy is informed consent, which requires that information about government practices and policies be disclosed" (Florini 2007: 3). The most important condition for accountability, however, is the effective *competition* in elections. This is because voters who are dissatisfied with those in power need to be able to replace them in elections. But this is only possible if alternative party options actually exist and if electoral contests are open to new interests and competitors (Bartolini 1999, 2000). Eighth, while the representatives in parliament are in charge of policy making, it is the executive's turn to implement these policies. In order to do so efficiently, it should have effective *governmental capability* in terms of resources and capacity (Bühlmann et al. 2011a: 7). Finally, to make sure that those in power abide by the democratic rules, the main constitutional powers should be divided and constantly check each other. Thus, parallel to the vertical control by the people, they should impose horizontal control or *mutual constraints* on each other (Bühlmann et al. 2011a: 7).

Media performance might have an influence on several if not all of these nine democratic elements and hence also foster the overall quality of a democracy. In the following section, however, I explain why I only focus on four of the nine dimensions. Furthermore, I will derive hypotheses about how those four are expected to be related to the vertical or the horizontal media function.

7.2 Hypotheses

One could assume that in order to gauge the relationship between media and democracy, it may be reasonable to simply estimate the effect of media performance on an overall index of democracy. However, this would fall short because democracy is a complex, multidimensional concept. Hence, neither the vertical nor the horizontal media function is likely to affect all of the nine elements of democratic quality to equal extents. And even if one assumes that a good media performance generally contributes to democracy, due to their different logics, the two media functions might not have the same or equally strong impacts on the various elements of democracy. Instead, this section argues that media performance in terms of the vertical function mainly benefits democracy with respect to political participation and transparency whereas media performance in terms of the horizontal function promotes the quality of democracy particularly by strengthening the civil society – the first component of what was labeled ‘public sphere’ in section 7.1 above – and political representation. These assumptions follow directly from the considerations and justifications for the two media functions discussed in chapter 3. They are subsequently outlined in more detail. It already needs to be pointed out, however, that testing the suggested hypotheses may pose some difficulties since establishing cause and effect is not always clear-cut in the field of media and democracy. These difficulties will be discussed in section 7.3.2 below.

7.2.1 The impact of the vertical media function

As described in chapter 3, the vertical media function's goal is disseminating information. On the one hand, this should help all citizens gain the knowledge and incentives they need to participate in the political process. On the other hand, disclosing and spreading information about political affairs makes the activities of the incumbents transparent to citizens, which ultimately stimulates accountability. For these reasons, the vertical media function is assumed to increase participation and transparency in a democracy.

Political participation

According to Bühlmann et al. (2011a, 2012), political participation has a dual meaning for the quality of democracy. Conventional and unconventional participation does not only need to be *high* in general but also *equal* in terms of personal resources and characteristics. The level and equality of participation are of course related to each other, because if a lot of people participate in politics, socio-economic gaps in political engagement are less likely. Consequently, a turnout of 100 percent would correspond to full equality of participation across different societal groups (assuming universal suffrage is given). Nevertheless, the two concepts are not the same thing. Especially at lower levels, an increase in participation does not necessarily go hand in hand with more equality. Similarly, growing equality may but does not automatically mean that more people participate. It is therefore appropriate to treat these two aspects of participation separately.

As for the *level* of participation, a widespread access to channels of communication that are rich in political content, as required by the vertical media function, reduces the information and consequently the opportunity costs for citizens to cast a vote (Baek 2009: 377f.). Moreover, media are not only assumed to influence individuals' behavior directly but also indirectly via interpersonal communication, i.e., by providing information for citizens' social networks (Katz and Lazarsfeld 1955; Schmitt-Beck and Mackenrodt, 2010: 392). By surveying the

elected elite and by making the results of this scrutiny easily available to everyone, media allow and motivate citizens to retrospectively hold representatives accountable in elections and recognize whether they consider their preferences even between elections (Kriesi et al. 2007: 6). Hence, if media perform well in terms of the vertical function they should raise political interest, people's awareness of what is at stake as well as their ability to choose their preferred representatives and vote inapt officials out of office. This is essentially what the so-called mobilization theory holds (see chapter 1; Baek 2009: 376). In short, a high diffusion and amount of political information is supposed to enable and mobilize more citizens to take part in politics (Norris 2000: 29f.):

H1a: The higher the extent to which media fulfill the vertical function, the higher is political participation.

Furthermore, it is expected that media enhance the level of participation mainly because they increase the *equality* of participation. In other words, especially those segments of the population that are traditionally less inclined to take part in politics are mobilized by a high media performance in terms of the vertical function. It has long been suggested that those with fewer resources, e.g. in terms of education and income, and less motivation to participate, such as low political interest, actually tend to be most affected by public communication (Van Kempen 2007; Zaller 1992). Hence, when mass media disseminate relevant and critical information about political affairs widely among the population, they should operate as an equalizing institution which lowers socio-economic gaps in political participation (Shehata 2010: 298). Thus, while highly sophisticated citizens are likely to engage in politics regardless of the information environment, citizens who are usually underrepresented among voters and participants have more incentives to take to the polls or to the streets if media perform their information and watchdog function well.

H1b: The higher the extent to which media fulfill the vertical function, the more equal is political participation.

In sum, media can enhance both the level and equality of participation, provided that the access to mass media is widespread and media actually cover the political process.

Transparency

Media are also considered to be important for the transparency of the political system if they make the political process and especially policy making visible in the public sphere. „Transparency can be regarded as the openness of institutions, that is, the degree to which outsiders (such as citizens or stockholders) can monitor and evaluate the actions of insiders (such as government officials or corporate managers)" (Kaufmann and Bellver 2005: 5). This requires open communication on the part of decisions makers, both proactively and in response to requests, as well as the absence of secrecy (Florini 2007: 5f.). Secrecy is motivated by the fear of being accused of mistakes but also the pursuit of vested interests, and often leads to corruption (Florini 2007: 6f.; Stiglitz 1999). The absence of corruption can therefore be taken as evidence for a transparent democratic regime. Lindstedt and Naurin (2005) argue that in order to reduce corruption, information first of all needs to be openly available. This is what they call "transparency". However, according to the authors, transparency is ineffective without "publicity". Hence, transparent information does not only need to exist but also be distributed to and absorbed by a broader public (Lindstedt and Naurin 2005: 8). Only this induces officials to worry about being held accountable and/or actually leads to sanctions by the electorate. Lindstedt and Naurin (2005) conceptualize transparency and publicity by a country's degree of media freedom and education. But this neglects that publicity closely depends on the dissemination of information as measured by the vertical media function in the present study (see also Adserà et al. 2003). Hence, rather than assessing publicity by citizens' levels of education – as a proxy of their competence to process information – vertical media func-

tion performance should be taken into account as a determinant of the prevalence of transparency and corruption.

In short, by reporting on the actions of office-holders and by providing the infrastructure for the broad diffusion of such information across the society, mass media are assumed to exert pressure on the political system that leads to a reduction of corruption and more transparent government communication (Brunetti and Weder 2003: 1804f.; Chowdhury 2004: 93f.; Graber 2003: 147; Stiglitz 1999).

H2: The higher the extent to which media fulfill the vertical function, the higher is transparency.

7.2.2 The impact of the horizontal media function

As discussed in chapter 3, the goal of the horizontal media function is to establish diversity. This means that mass media should provide a public forum that allows all political actors to express their interests through a multitude of different channels. Applied to the model of the democratic process sketched above, this might be important for the articulation of preferences by citizens and intermediary actors as well as the inclusion of those preferences into the arena of political decision making. Accordingly, the horizontal media function is assumed to strengthen the civil society and improve political representation.

Civil society organization

According to the Democracy Barometer, a strong civil society in terms of a high degree of collective organization is important for the quality of democracy with respect to the public sphere function.[71] A vibrant civil society should not only help political parties to form pro-

[71] In fact, the civil society – or "freedom of association" as it is called by Bühlmann et al. (2011a: 6) – only covers one component of the public sphere function within the concept of the Democracy Barometer. However, the second component – the "freedom of opinion" – is largely congruent with media performance in terms of the horizontal media function in this study. For this reason, chapters 7 and 8 are obviously confined to the aspect of civil society. Nevertheless, the fact that civil society and media diversity are subsumed under the same larger concept in the Democracy Barometer points to the appropriateness of hypothesis 3.

grams that are in line with public opinion, it may also foster the responsiveness of incumbents. But what or what kind of collective organizations exactly constitute the civil society seems to be debated in the literature (Chambers and Kymlicka 2002: 2f.; Foley and Edwards 1996: 38). In this book the concept is used to refer to the „density of associations with political and public interests" (Bühlmann et al. 2011a: 6). This includes the frequency of memberships in all kinds of intermediary organizations, namely associations representing vested interests, such as professional organizations or trade unions, as well as non-profit organizations like for example environmental or human rights groups.

The power and capacity of public and special interest groups to influence the political elites relies to a high degree on "outside lobbying" (Kollman 1998). This means that they need public attention in order to make themselves heard by political decision makers and, more importantly, in order to mobilize supporters. The larger their base of supporters, the more legitimate it is for intermediary associations to assert political claims (Vliegenthart et al. 2005: 367), and the more costly it becomes for politicians not to respond to those. Thus, media can empower the civil society by providing a diverse forum which grants all intermediary organizations room to publicly articulate their preferences and interests.

However, not all civil society organizations rely on public attention to an equal extent. As Binderkrantz (2008) shows, "groups with corporative resources" such as trade unions or business associations are better able to directly influence the bureaucracy and political office-holders than public interest groups. Nevertheless, even these organizations need to regularly recruit new members, and at least for this purpose, public visibility is still important to them. Hence, it can be expected that if a country's media system as well as its media coverage is characterized by a high degree of diversity, i.e., media performance in terms of the horizontal function is high, the number of supporters for various intermediary organizations should grow and civil society thereby become stronger.

H3: The higher the extent to which media fulfill the horizontal function, the stronger is the civil society.

This hypothesis may in fact be the most difficult to test because a major problem of reverse causality can be suspected. I will come back to this issue later in this chapter (see 7.3.2).

Political representation

Media diversity should not only lead to more interest group organization but is also assumed to foster political representation. Adequate representation requires the inclusion of as many citizen preferences as possible into the political decision-making arena so that representatives act on behalf of the represented (Powell 2004b: 273). Different forms of representation are discussed in the literature. Most important is the distinction between descriptive and substantive representation. Descriptive representation means that the socio-demographic composition of the legislative and maybe the executive branch of government reflects the socio-demographic composition of the population at large (Mansbridge 1999: 629). This is most often called for with respect to women and ethnic minorities (Urbinati and Warren 2008: 388). Substantive representation, by contrast, „means that citizens' issue preferences should correspond to the positions or behavior of their representatives" (Powell 2004b: 274).

I argue that effective representation, according to both meanings, hinges on whether the variety as well as the distinctions of political alternatives become evident to constituents. In other words, the probability of adequate representation increases if citizens can actually identify – and elect – the political parties and candidates who are likely to represent them best, both in descriptive and substantive terms. This is where media diversity is supposed to make a difference. Media can clarify the supply of political choices by giving all of them a platform to present and contrast their different positions (Boomgarden and Vliegenthart 2007: 407; Kriesi et al. 2007: 6). This is especially important for agents of discriminated minorities, who might be able to escape marginalization by publicly voicing their grievances and mobilizing supporters.

Obviously, a well-balanced public visibility of all political competitors can be expected in particular from mass media that are dedicated to diversity in their news coverage and of media systems that are composed of a large variety of different news outlets. Hence, a high fulfillment of the horizontal media function might help voters to select those alternatives which are in fact most compatible with themselves and their preferences and, consequently, lead to a better congruence of political positions and of socio-demographic characteristics between the representatives and the represented.

H4: The higher the extent to which media fulfill the horizontal function, the more adequate is political representation.

As the discussion in this section has shown, four main hypotheses (H1 to H4) will be tested in chapter 8, with the first of these divided into the two sub-hypotheses H1a and H1b. But before we move on to the empirical analyses, the following section describes the data and methods used in part II of this book and also discusses potential endogeneity concerns.

7.3 Data and methods

Since part II of the present study is interested in the influence of democratic media performance, as developed in chapters 3 through 6, the scores from the latent factors for the vertical and the horizontal media function serve as the main independent variables in chapter 8. Although the hypotheses specified in section 7.2 only expect one of the two media functions to contribute to political participation, transparency, the civil society and political representation, I will always control for the impact of the respective other media function at the same time. Thereby, we can test whether the two media functions really have different impacts and study how overall democratic media performance affects the four aspects of democracy. If normative theories are right, we might assume generally positive effects of media performance, even though to their strengths should differ for the two media functions according to H1 to H4.

Unfortunately, data for media performance on the content level is only available for ten countries. This is certainly not enough to perform multivariate analysis. The empirical analyses in the next chapter will therefore have to be confined to media performance on the structural level or more precisely, the factor values derived from the results shown in tables 5.1 and 5.2.

The data used for the dependent and the control variables for every of the five hypotheses is described in the following section 7.3.1. Thereafter, I will specify the methods applied as well as discuss possible challenges involved in testing the assumed causal relationships in section 7.3.2.

7.3.1 Data

The dependent variables for H1 to H4 are taken from the Democracy Barometer dataset (Bühlmann et al. 2011a, 2012).[72] The control variables, by contrast, come from different sources and are collected by the author. The Democracy Barometer is a relatively new instrument designed to overcome the deficiencies of previous indices of democracy (see Munck and Verkuilen 2002; Müller and Pickel 2007) and to measure the subtle differences in the quality of established democracies. Based on a comprehensive theoretical concept, the quality of democracy is systematically and stepwise disaggregated to more concrete levels: from three fundamental principles to nine functions, 18 components, 51 sub-components and finally, 100 indicators, mostly from secondary data sources. Every component includes indicators that assess the existence of institutions or legal foundations (rules in law) as well as the constitutional reality (rules in practice). Since media performance is unlikely to affect the former in a straightforward way, only 'rules in practice' are considered in this study.

The Democracy Barometer dataset currently contains data for 30 democracies and the years 1990 to 2007. The full dataset as well as the codebook and a documentation of the methodology can be downloaded from the project website (see footnote 72). Data has already been

[72] See also http://www.democracybarometer.org/ (08/28/2012).

collected for additional countries as well as up to 2008 by the research team. This extended dataset has not yet been published but was available to the author. Hence, the data is almost complete for all of the 47 cases from the large sample and the full time series from 1990 to 2008.

The specific indicators used to construct the dependent variables are now discussed separately for every hypothesis. Whenever the dependent variable is a composite index of various indicators, all indicators were first standardized to a scale ranging from 0 to 100 according to best practice within the 47-country sample, following the approach of Bühlmann et al. (2011a: 9).[73] An overview of the raw indicators and their sources can also be found in table A7.1 in the appendix, and they are all described in detail in Bühlmann et al. (2011b).

Political participation

The participation function from the Democracy Barometer is composed of eleven indicators. Only seven of them are used for the present study because the other three measure rules in law.

The *level of participation*, as required by H1a, is measured by an index that consists of three indicators. The first equals the average of a country's turnout rates in parliamentary and presidential elections as well as national referenda, if the latter two exist. Referenda are only counted in the years in which they take place, but electoral turnout rates are copied to the following years up to the next election. The main data sources are the voter turnout database from IDEA and the Inter-Parliamentary Union (IPU).[74] The other two indicators for the level of participation measure involvement in alternative forms of participation, namely petitions

[73] Hence, in every indicator, the lowest value within in the 893 country-years (47 countries x 19 years) was recoded into 0 and the highest into 100. All values in between were adjusted accordingly.

[74] IDEA: http://www.idea.int/vt/ (07/11/2012); IPU Parline Database: http://www.ipu.org/parline/ (08/28/2012). Further data sources are listed in Bühlmann et al. (2011b).

and demonstrations. This is operationalized by data from various cross-national surveys.[75] More specifically, the values of the indicators equal the shares of respondents who indicate that they have signed petitions and attended lawful demonstrations, respectively. These two indicators for alternative participation were first standardized (see above) and averaged. The resulting means were then again averaged with the standardized turnout indicator, in order to get an overall variable for the level of political participation.

The dependent variable for H1b, reflecting the *equality of participation*, is a composite index of four indicators which are all constructed from survey data as well (see footnote 75 for sources). Again, both conventional and unconventional forms of participation are considered. The first two indicators measure socio-economic (income and education) and demographic (age and gender) gaps in electoral participation. More specifically, they compare the distributions of different income and education as well as gender and age groups among all respondents in a survey and only those who said they voted in the last national election, in order to assess the over- and underrepresentation of these groups among voters. The exact calculation procedure is described in Bühlmann et al. (2011b). The two indicators for the equality of unconventional participation in socio-economic and demographic terms follow the same approach for respondents' engagement in petitions and lawful demonstrations. For the overall index of equality of participation, the four indicators were standardized (see footnote 73) and averaged. Hence, with regard to both the level and the equality of participation, operating with combined measures for conventional and unconventional participation is preferred over testing H1a and H1b separately for the two forms of participation. This is because, on the one hand, this study is interested in the general amount and equality of political participation. On

[75] All waves of the following surveys were considered and used if they included the required items: Asia Barometer, Asian Barometer, Comparative Study of Electoral Systems, Eurobarometer, European Election Study, European Social Survey, International Social Survey, Latin American Public Opinion Project, Latinobarómetro and World Values Survey.

the other hand, having four instead of two dependent variables would make the analyses in chapter 8 rather difficult to manage.

The media performance factor scores, and especially the ones for the vertical media function, obviously constitute the independent variables of interest. In addition, four control variables are included into the set of explanatory variables. First, the access to mass media might be widespread because political interest is generally high. After all, demand determines supply at least to some extent and, the structural indicators for the vertical media function might be considered as reflecting media consumption patterns within a society. At the same time, political interest should have a positive effect on political participation. However, media do not only carry political information but also economic, sports and general human interest news or – at least in the case of electronic media – fiction and music. Their diffusion might thus be rather driven by the people's desire for entertainment than their thirst for political knowledge. Nevertheless, controlling for the average level of political interest in a country seems reasonable. Like most of the dependent variables for H1a and H1b, political interest is measured by survey data from the Asian Barometer (AsnB), Eurobarometer (EB), European Social Survey (ESS), International Social Survey (ISS), Latinobarómetro (LB) and World Values Survey (WVS). The indicator counts the average share of respondents who indicated to be "very" or "somewhat interested in politics".[76]

Of course, there are many more possible determinants for the equality and especially the level of political participation, as the literature in this field suggests (Blais 2006; Franklin 2004; Teorell 2006). On the macro level, the effects of political institutions (such as the type of electoral system or compulsory voting), the party system (the number of parties and the degree of electoral competition) and socio-economic conditions (e.g. a country's economic performance) on participation have been studied extensively, even if with very mixed results (see

[76] The question wording differs somewhat across surveys, but the answer scales always range from 1 to 4.

Blais 2006). I therefore further control for whether countries have a proportional representation (PR) electoral system and compulsory voting to account for political institutions as well as at least partially the party system (PR usually coincides with a multi-party system). Additionally, two country dummy variables are included. Switzerland and the United States have generally low turnout rates for institutional reasons (voter registration and direct democracy), and comparative electoral researchers thus often include dummies for these two countries into their regression models.

PR is simply measured by a dummy variable which takes the value 1 in countries where parliamentary seats are predominantly assigned according to proportional representation. The respective information comes from Beck et al. (2001) as well as IDEA's Electoral Systems Design Database[77]. It is constant over time for all countries except New Zealand, which switched from plurality to proportional voting in the early 1990s.

Compulsory voting also consists of a time-constant dummy variable which adopts the value 1 in countries where citizens are legally obligated to participate in elections, regardless of whether and how strictly noncompliance is sanctioned.[78] The sources for this variable are the ACE Electoral Knowledge Network, IDEA and the IPU.[79]

Finally, a country's level of prosperity might have been important to include in order to consider socio-economic conditions. Yet, tests have shown that GDP per capita has no effect on participation when controlling for political interest in the country sample studied here. For this reason, rather than as a control variable, GDP per capita will be used as an instrumental variable in the analyses of H1 (see sections 7.3.2 and 8.1).

[77] http://www.idea.int/esd/search.cfm (08/28/2008).

[78] However, the models were also estimated with variables where compulsory voting was only counted when it is 1) enforced and 2) strictly enforced. The results are essentially the same.

[79] ACE: http://aceproject.org/epic-en/CDTable?question=LF004&set_language=en (08/28/2012); IDEA: http://www.idea.int/vt/compulsory_voting.cfm (08/28/2012).

Transparency

The function 'transparency' is measured by nine indicators in the Democracy Barometer. However, most of them cannot be used in this context because they capture the existence and design of laws (e.g. concerning freedom of information legislation or the financing of political parties) or should rather be used as control variables than as dependent variables (media freedom).

Hence, transparency is simply operationalized as the absence of corruption. As outlined above, the two concepts are closely related, and corruption can be considered a result of failed or insufficient transparency. The Corruption Perceptions Index (CPI) from Transparency International, which was already used in chapter 6, will therefore serve as dependent variable for H2.[80] The CPI is constructed from corruption ratings of about ten different institutes, which are based on either assessments of country analysts or surveys of businesspeople. Of course, every CPI source uses its own conceptualization of corruption, but overall, the CPI claims to capture the extent of „the misuse of public power for private benefit, for example bribing of public officials, kickbacks in public procurement, or embezzlement of public funds" (Graf Lambsdorff 2008: 4). The CPI scale ranges from 0 to 10, whereby higher values mean less corruption.

In addition to the media performance variables, two control variables are included in the models testing H2. Both of them are consistently used in studies of corruption (Treisman 2007). The first is an index for media freedom as provided by Freedom House and as already used in chapter 5.[81] According to Lindstedt and Naurin (2005), free and independent media are crucial to deter public officials from being corrupt, especially in combination with "publicity". Moreover, media can only effectively promote transparency if they are able to operate freely. Like in chapter 5, chapter 8 uses Freedom House's overall press freedom score, which

[80] Transparency International: http://www.transparency.org/policy_research/surveys_indices/cpi (08/28/2012)

[81] Freedom House: http://www.freedomhouse.org/report-types/freedom-press (08/28/2012).

consists of three sub-indices for legal, political and economic restrictions of media's free operation. The index ranges from 0 to 100 and was reversed so that higher values indicate more media freedom. The second control variable is GDP per capita since corruption is more likely to take place in poorer countries. As in previous chapters, GDP per capita figures are taken from the World Bank.[82]

Civil society

The strength of the civil society is part of the public sphere function of the Democracy Barometer. The average values of two indicators reflecting the degree of collective organization of both special and public interests are used as dependent variable for hypothesis 3.

The first indicator measures a country's trade union density. More specifically, it indicates the share of salary earners who are members in a trade or labor union. The main data sources are the databases of the International Labor Organization (ILO) and the OECD as well as Golden et al. (2009) and Visser (2011).[83]

The second indicator measures the degree of membership in a specific category of public interest organizations. For this purpose, it once again relies on data from cross-national opinion surveys. Hence, the indicator records the share of respondents who indicate that they are member in and/or active for an environmental or animal rights organization. Since this is not regularly asked in representative surveys, data only comes from the following sources: EB, ESS, LB and WVS. No data for this item is available for Mongolia in the WVS, which means that the sample only consists of 46 countries in the analyses for H3.

Four control variables are added to the explanatory variables for civil society organization. The first is the aggregate level of generalized or interpersonal trust. According to the relevant

[82] World Bank database: http://databank.worldbank.org (08/28/2012).

[83] ILO LABORSTA database: http://laborsta.ilo.org/xls_data_E.html (08/28/2012). OECD database: http://stats.oecd.org/ (08/28/2012). Further data sources are listed in the Democracy Barometer codebook (Bühlmann et al. 2011b).

literature (e.g. Coleman 1988; Putnam 1993), generalized trust and membership in associations are closely related and form two components of the same concept – social capital. This indicator is composed of the share of respondents indicating to generally trust other people in various international surveys.[84]

Second, GDP per capita once again seems to be a necessary control variable. This is because in more favorable economic environments, people probably have more resources to support – especially public – interest associations. Finally, just like media structures, the civil society and especially the organizational strength of labor unions are determined by a country's historical context and its political culture. Hence, country-specific or regional factors should be taken into account. This is especially crucial for two groups of countries. On the one hand, Scandinavian countries traditionally have very high degrees of union density. In addition, they are also well-known for their strong press sector. Thus, a Nordic dummy (which takes the value 1 for Denmark, Finland, Iceland, Norway and Sweden) is included into the models for civil society in chapter 8, to make sure that any association between the horizontal function and civil society is not inflated by these rather extreme cases. On the other hand, the former socialist or communist countries in the sample might actually distort the analyses of H3 in the opposite direction. While they are also characterized by a quite high degree of union membership – at least in the earlier years of the period of investigation – they score rather low in terms of structural media performance. The fourth control variable therefore consists of a dummy for the former socialist countries Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

[84] In the AsnB, the LB and the WVS, this is just a binary variable contrasting "most people can be trusted" with "you can't be too careful", whereas the ESS measures this question on a scale ranging from 0 ("can't be too careful") to 10 ("most people can be trusted"). Values 6 and higher were coded as being trustful. In the ISS, finally, the trust question has four response categories, and the percentages of the two categories on the trusting side were added ("people can always be trusted" and "people can usually be trusted").

Representation

Finally, the function 'representation' consists of ten indicators in the Democracy Barometer, two of which are considered to be most susceptible to media effects. One is a measure for substantive representation, the other stands for descriptive representation. Both were standardized to a range from 0 to 100 and averaged in order to have a single index for political representation as the dependent variable in H4.

The indicator for substantive representation assesses the issue-congruence of voters and representatives. To be more precise, it measures the congruence between the electorate and national assemblies in terms of the distribution of left and right positions among their members. To simplify the measurement and comparison, positions of both voters and members of parliament were classified into the three broad categories "left", "middle" and "right". Ideological positions within the electorate were determined by individuals' self-placement on the left-right scale in various international surveys.[85] Positions within the parliament correspond to the positions of the parties represented in parliament. The distribution of these positions is simply based on parties' seat shares. Party positions were mainly taken from the Comparative Manifestos Project.[86] The possible range of the final issue-congruence indicator is 0 to 100, and higher values indicate higher issue-congruence (for the exact calculation, see Bühlmann et al. 2011b). Because there is again no data for Mongolia, the country sample is reduced to 46 cases in the test of H4.

The variable for descriptive representation measures the degree of political discrimination and inequality of minority groups. It is provided by the Minorities at Risk Project (MAR) and ranges from 0 to 4, whereby 0 stands for the complete exclusion of a minority group from the political process and the denial of basic political rights and civil liberties for a group, and 4

[85] Comparative Study of Electoral Systems, EB, EES, ESS, ISS, Latin American Public Opinion Project, LB and WVS.

[86] Comparative Manifestos Project: https://manifesto-project.wzb.eu/ (08/28/2012). Further sources are listed in the Democracy Barometer codebook (see Bühlmann et al. 2011b).

means that there is no political discrimination.[87] The categories in between additionally consider how well a minority is represented in public offices. The variable is coded for every substantial minority group at risk according to the MAR project team and then averaged across all groups from the same country. The final score therefore corresponds to the mean level of equality and representation of minorities. When MAR did not identify a minority at risk in a country, the indicator equals the maximum value.

On top of the main independent variables, the media function factor scores, two control variables will be added to the set of explanatory variables. First, a country's level of political interest, i.e., the share of citizens indicating to be interested in politics, will already be used as a determinant for political participation. However, it could also be important in explaining the quality of representation. People who care more about politics are probably also better capable of electing the parties closest in line with their preferences, regardless of how media systems are configured. At the same time and as already discussed, the higher the aggregate level of political interest in a country the better structural media performance can be expected to be. Second, political representation is likely to be more adequate in PR electoral systems. On the one hand, where more and smaller parties have a chance of winning seats, the political inclusion of minorities should be better guaranteed. On the other hand, issue-congruence has been found to be higher in systems with proportional representation too (Powell 2004b: 288).

7.3.2 Methods

Every hypothesis will be tested by different multivariate regression approaches. These are shortly outlined below. Moreover, challenges which might arise when examining H1 to H4 and which partly explain the need for different estimation techniques are discussed. Establishing causal relationships is challenging when one deals with such large concepts as 'media' and 'democracy'. Because they are very much intertwined, it is hard to precisely predict

[87] MAR: http://www.cidcm.umd.edu/mar/ (08/28/2012). The original scale was reversed so that larger values indicate less political discrimination.

which causes what, whether there is a unidirectional causality at all or whether both the dependent and the independent constructs are jointly caused by some third phenomenon which cannot be controlled for. Thus, the empirical analyses in part II of this book might be plagued by problems of endogeneity.

In a first step, all hypotheses are tested on the basis of cross-sectional data by simple OLS regression. For this purpose, the dependent and control variables are averaged across 1990 to 2008. As for the independent variables of interest, structural media performance, the data corresponds to the scores from the factor analyses presented in the right-hand sections of tables 5.1 and 5.2. These are also based on the overall means of the constituent media indicators across all 19 years under study.

As for H1, the assumed causality should not be very problematic. The assumption that the diffusion of access to mass media across the population affects political participation – and not vice versa – is pretty straightforward. Moreover, the underlying factor expected to determine both phenomena, political interest, is included as control variable along with compulsory voting and proportional representation, so that no omitted variable bias should occur.

Estimating the impact of structural media performance on transparency should not pose difficulties either. First, reverse causality is not obvious. Given that only more or less established democracies are analyzed, it is hard to image that nontransparent and corrupt governments could restrict the people's access to mass media. Second, even though one could suggest that country analysts or surveyed business people, respectively, rate corruption to be lower on the grounds that the mere availability of mass media for citizens is widespread, this assumption seems rather unlikely. Moreover, none of the sources for the transparency indicator lists any factors related to media systems as indicative of their ratings. Finally, possible co-determinants of the dependent and independent variable are included as controls (media freedom and GDP per capita).

Testing H3 might pose the biggest challenge because the structural indicators of the horizontal media function are probably not exogenous explanatory variables of the degree of membership in associations. Both the latter and structural media diversity might have joint causes, as discussed in section 7.3.1. Yet by introducing different control variables and especially regional dummies, I hope to account for this problem and avoid omitted variable bias.[88]

Finally, similar considerations as for H1 apply to H4. It is not likely that there is an issue of reverse causality, because it is not at all obvious how media diversity on the structural or system level could be a function of political representation. Political interest and the electoral system, however, might again influence the variables on both sides of the equation and thus confound their relationship. This is why both are defined as control variables for the analysis of H4 as well.

To further exclude any possible bias, the models will be tested for endogeneity according to a procedure proposed by Wooldridge (2006: 532f.) and – if necessary – re-estimated by a two state least squares (2SLS) approach.[89] Both the tests and 2SLS estimation, however, require finding one or more instrumental variables which are correlated with the endogenous independent variables but uncorrelated with the error term, i.e., unobserved factors that affect the dependent variable (Wooldridge 2006: 512). Finding such variables is very difficult. For example, no suitable instrument was found that could be used in the models predicting transparency. By contrast, possibly appropriate instrumental variables regarding the analyses for hypotheses 1, 3 and 4 were identified. They are discussed in the respective sections of chapter 8.

[88] Testing H3 on the content level would be even more problematic because of the major difficulty of identifying cause and effect. It would be unclear whether civil society is strong due to a balanced reflection of all interests in the public sphere, or whether mass media represent all different interests in their news coverage precisely because the civil society is strong. As for the structural level, however, such a problem of reverse causality should be less of an issue.

[89] All models are also tested for heteroskedasticity by a Breusch-Pagan test (see Wooldridge 2006: 280f.).

Another useful tool to study causal relationships between phenomena which seem closely interconnected and where it is therefore difficult to argue with certainty which precedes which, is time series or panel analysis (see Finkel 2008: 476). For this reason, the cross-sectional analysis is followed by a panel analysis with the same dependent, independent and control variables for every hypothesis. The respective longitudinal data consists of four observations for each country, whereby one observation equals a five- or four-year period in which the dependent and control variables are averaged (1990-1994; 1995-1999; 2000-2004; 2005-2008). Accordingly, the media performance scores used as independent variables are taken from the left-hand sections in tables 5.1 and 5.2, which are based on the same five-year averages.

As for the specific method applied, all longitudinal models are based on generalized estimating equation (GEE) regression. GEE is an extension of generalized linear models and a very suitable technique to study and correctly model correlated data, which is most often the case when it consists of repeated measures over time (Hilbe and Hardin 2008; Zorn 2001). Since it is a population-averaged approach, a GEE coefficient can be interpreted as the average effect of x on y (Zorn 2001: 474). GEE allows defining the nature of the correlation between the data. Because the dataset consists of longitudinal data, it is likely to be serially correlated. Thus, the GEE models are specified to account for first-order serial correlation (AR(1)). Furthermore, panel-specific heteroskedasticity-robust standard errors are estimated. A drawback of GEE, however, is that the usual model goodness-of-fit measures cannot be computed (Zorn 2001: 476). For this reason, and because results from GEE models are often presented alongside other panel estimation procedures in the empirical literature (e.g. Mainwaring and Zoco 2007; Souva et al. 2008), the robustness of the GEE estimates is checked by comparing them

with estimates from random effects models, based on generalized least squares estimation (GLS).[90]

Panel analysis is attractive to clarify issues of causality, because not only static but also dynamic effects can be modeled. So-called static models test contemporaneous relationships between independent and dependent variables from the same time period. Dynamic panel models, by contrast, exploit the time series character of the data to make sure that the (assumed) cause precedes the consequence. Dynamic models use lagged independent variables, i.e., independent variables from a previous time period, and test how they impact the dependent variables. Thus, since the direction of causality might be unclear and delayed effects are likely for at least some of the five hypotheses, both static and dynamic panel models will be estimated in chapter 8.

7.4 Summary

Chapter 7 made the transition from the first to the second part of this book. While part I was concerned with conceptualizing and studying media performance with respect to democratic standards, part II is interested in its effects on different elements of the quality of democratic regimes. The aim of this chapter was to derive theoretical assumptions about the nature of such effects and to clarify technical questions, so that the expected relationships can be empirically explored in the next chapter.

Hence, section 7.1 outlined a model of the democratic process and the quality of democracy, mostly based on the concept of the Democracy Barometer (Bühlmann et al. 2011a, 2012).

[90] Random effects models are preferred over fixed effects models in this study because fixed effects estimation has a number of disadvantages. First, it does not allow including variables that are constant over time, which is true for some of the control variables. It is also not ideal if the predictor variables change little over time, which might apply in the present study as well. Moreover, estimating a different intercept for every country means that many degrees of freedom are lost, especially when the cross-section is large compared to the number of time periods, which is the case here. Finally, fixed effects models may suffer from multicollinearity and, since they only focus on intraunit variation over time, they „ignore the possibility that unit-to-unit variation sheds light on the relationship between x and y" (Worrall 2008: 235).

Accordingly, nine basic conditions which are required for high-quality democracy have been discussed. In section 7.2 it was argued in more detail that four of these are supposed to have a positive relationship with democratic media performance. More specifically, a fulfillment of the vertical media function is expected to promote the level (H1a) and equality of political participation (H1b) as well as transparency (H2). A high fulfillment of the horizontal media function, by contrast, is hypothesized to enhance the strength of the civil society (H3) and the accuracy of political representation (H4).

Finally, section 7.3 presented the data to be used as dependent and control variables in the following chapter. The media function factor scores from the first part of this book will serve as independent variables for hypotheses H1 to H4. In addition, the methods applied to test the theoretical expectations were explained, while considering potential problems of endogeneity at the same time. All hypotheses will be examined in both a cross-sectional and a panel framework, implementing OLS and GEE estimation. However, due to the limited number of countries for which content analysis data is available, the following analyses are only based on structural media performance, i.e., the democratic performance of media systems.

Chapter 8:
Testing the relationship between media systems and the quality of democracy

Having derived theoretical expectations with regard to the impact of media performance in terms of the vertical and horizontal function on four aspects of democratic quality in chapter 7, this chapter moves on to examine whether multivariate regressions provide empirical evidence to support these assumptions. This will hopefully give some insight into how important mass media are for the well-functioning of democracy and thus whether the debate about the state of democracy in today's media societies between 'pessimists' and 'optimists', as briefly outlined in the introductory chapter 1, is actually relevant at all. While the former argue that today's mass media generally harm democracy, the latter hold the opposite position.

As already mentioned, because content analysis data is only available for a few countries, the relationships between functions of democracy and media performance cannot be tested at the content level. The following analyses are therefore exclusively based on structural media performance. Hence, only the latent factors shown and discussed in chapter 5 are used as independent variables. Furthermore, the analyses are limited to the media performance measures from the larger sample consisting of 47 countries. This means that only the factor scores resulting from table 5.1 are considered while those resulting from the smaller 24-country sample (see table 5.2 in chapter 5) are left aside. This has two reasons. On the one hand, the rather low number of 24 cases would again cause problems in at least some of the following analyses where several explanatory variables are used. On the other hand, it was found that the results do not differ much between the two country samples.[91] Thus, rather than needlessly overburdening the chapter with analyses, I focus on just the large sample.

[91] There are a few differences in terms of statistical significance, but the effects still point in the same direction.

Keeping these restrictions in mind, the following analyses will proceed in a similar fashion for all five hypotheses from chapter 7. First, the results from OLS regressions on the basis of the cross-sectional data are presented. Second, the same analyses are repeated for the longitudinal data, whereby the four time periods correspond to five-year averages of the underlying data. As described in chapter 7 (section 7.3.2), a GEE approach with an AR(1) specification and panel-specific heteroskedasticity-robust standard errors is chosen for all panel models. Moreover, the static models are complemented by dynamic models with lagged independent variables in the cases of H2 to H4. Dynamic models are not estimated for H1 because unlike transparency, civil society organization and representation, media performance is expected to primarily have an immediate effect on political participation.[92]

8.1 Structural media performance and political participation

The first two hypotheses discussed in chapter 7 (H1a and H1b) assume a positive relationship between media performance in terms of the vertical function and both the level and equality of political participation. This section aims at examining these theoretical assumptions.

Accordingly, the first dependent variable captures the mean level of political participation in elections, referendums (if existing), demonstrations and petitions. The second measures the equality of participation in terms of gender, age, income and education, again in elections, demonstrations and petitions. Although predominantly the vertical function is expected to affect participation, the impact of the horizontal function factors is tested as well. In addition, I control for a country's aggregate level of political interest, the electoral system, compulsory voting as well as Switzerland and the United States.

[92] Moreover, section 8.1 already includes twice as many regression models as the other sections due to the two sub-hypotheses H1a and H1b and two dependent variables, respectively. Finally, the assumed causality seems to be less problematic than for example compared to H3 (see chapter 7, section 7.3.2), and endogeneity could be tested for, unlike in the models for H2 (see below).

Table 8.1 shows the results of four different OLS regression models predicting the two dependent variables. Due to high multicollinearity between the vertical function factors scores and the political interest variable[93], two separate models for each dependent variable are presented: model I with and model II without political interest.

Table 8.1 *Explaining political participation by media performance (cross-sectional analysis)*

	Level of participation				***Equality of participation***			
	Model I		*Model II*		*Model I*		*Model II*	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
VF	5.326	(2.202) *	7.587	(1.904) ***	2.876	(2.322)	4.232	(1.949) *
HF: QND	3.112	(1.793) +	3.219	(1.850) +	-3.455	(1.891) +	-3.390	(1.894) +
HF: QLD	-0.854	(1.728)	0.019	(1.717)	0.969	(1.822)	1.493	(1.758)
Interest	0.349	(0.186) +	-	-	0.209	(0.196)	-	-
PR system	-2.001	(4.437)	-3.870	(4.463)	-1.624	(4.679)	-2.744	(4.568)
Compulsory	15.858	(3.994) ***	13.187	(3.852) **	3.447	(4.212)	1.845	(3.944)
Switzerland	-25.562	(11.559) *	-25.204	(11.927) *	-4.077	(12.189)	-3.863	(12.210)
United States	-15.749	(12.070)	-17.118	(12.434)	-9.942	(12.728)	-10.763	(12.728)
Constant	30.176	(10.362) **	48.229	(4.026) ***	56.909	(10.927) ***	66.956	(1.489) ***
Model Properties								
R^2	0.467		0.417		0.244		0.221	
Adjusted R^2	0.354		0.312		0.085		0.081	
N	47		47		47		47	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, + $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; PR system = proportional representation system.

As for the first dependent variable – the level of participation in conventional and unconventional forms – a positive and significant effect of the vertical media function can be observed in both models. Thus, as expected in H1a, a higher degree of fulfillment of the vertical media function in a country is associated with higher turnout and other participation rates. In line with mobilization theory, the results suggest that a better availability of information induces people to express their opinions at the polls and on the streets. Because of the strong correlation of the vertical function factor with political interest, the effect is more significant and

[93] The correlation between the two variables is highly significant, almost 0.70 in the averaged data and almost 0.50 in the longitudinal data.

larger in model II than model I. Yet both coefficients are in fact quite substantial. Ceteris paribus, moving from the lowest to the highest vertical media function performance raises the predicted level of participation by 34 percent (model I) or 48 percent (model II), respectively.[94]

Looking at the horizontal media function, quantitative media diversity is weakly but positively related to political participation as well. This suggests that in order to empower and mobilize people to participate, it not only matters whether information is available and accessible but also whether it comes from a multitude of different channels. It could be that in more diverse media systems, voters are more likely to learn about all electoral alternatives, which in turn, makes it easier for them to choose and cast votes. That said, however, qualitative media diversity – the second component of the horizontal function – has no significant impact on the dependent variable in table 8.1.

Like expected, political interest is positively associated with the level of political participation. The estimate is only marginally significant, however. This is again at least partly due to this variable's high correlation with the vertical media function. If the impact of political interest was estimated without the media variables, it would have a highly significant and also larger positive effect. As for the remaining control variables, participation is significantly higher in countries where voting is compulsory and lower in Switzerland than in other countries, as anticipated. It also seems to be lower in the United States and in countries with proportional representation as the signs of the respective estimates illustrate, but they are not statistically different from 0.

[94] The range of the vertical media function factor scores is 3.734. Multiplied by 7.587, its coefficient in model II, this amounts to 28.330, which equals 48 percent of the dependent variable's total range in the 47-country sample (= 59.002). With the coefficient from model I, the maximum effect of the vertical function is just 19.887 or 34 percent from 59.002.

Moving to the equality or, in other words, representativeness of both traditional and alternative political participation, the figures show that it is not affected by vertical media function performance when controlling for political interest (model I). A positive influence can be observed when the interest variable is excluded from the estimation (model II), but it is weaker than with respect to the level of participation. To compare, the maximum effect of the vertical function factor now only accounts for about 32 percent of the range in the equality of participation measure.

Contrary to the level of participation, a larger quantitative diversity of print outlets, the first component of the horizontal media function, seems to decrease the equality of participation. A greater supply of information channels might thus overburden some segments of the electorate and prevent them from participating in politics. However, a closer inspection of this rather puzzling result reveals that the significant relationship can be explained by one outlier case: Cyprus. According to the data, participation in Cyprus is very unequal. But at the same time, the country has the highest value for quantitative media diversity. Hence, when controlling for Cyprus in the models in the right-hand section of table 8.1, the effect of quantitative diversity disappears.

None of the remaining variables in the models have a statistically significant association with the equality of participation. But at least political interest would have a significant positive effect without the vertical media function.

Finally, it must be noted that all the models in table 8.1 have a quite poor goodness-of-fit, and in particular the ones for the equality of participation. This suggests that further explanatory variables should be considered to fully explain the dependent variables. This is of course not very surprising, considering the wealth of further determinants for turnout and political participation in general that the corresponding research tradition has put forward (see Blais 2006; Franklin 2004; Teorell 2006). Additional control variables, however, are not necessarily of

interest here as long as they are not suspected to be correlated with the explanatory variables in the model, which would cause those to be endogenous. In order to check whether this might be the case, I additionally performed a test for endogeneity according to Wooldridge (2006: 532f.). I mainly tested whether the vertical media function variable is exogenous or not by using GDP per capita as an instrumental variable (IV) for it.[95] The test results indicate that endogeneity does not seem to be a problem in any of the models in table 8.1.

Compared to the simple cross-sectional OLS estimations, the panel data models produce partly similar and partly deviant results. Table 8.2 presents the respective GEE coefficients. Beside the five control variables, time period dummies are included in all models. These are necessary because at least the vertical media function factor scores are trending over time. Since the results for the media variables do not change substantially when political interest is excluded, the respective results are not presented.

The first model for the level of political participation shows that, in line with the cross-sectional analysis, the vertical media function has a positive effect in the panel analysis as well. While the coefficient is smaller in the panel model, it is more significant than in the OLS regression. Likewise, the first component of the horizontal media function – quantitative diversity – exhibits the positive significant relationship with the extent of participation already observed in the cross-sectional analysis. By contrast and again, the second component – qualitative diversity – does not seem to affect the extent of political participation.

[95] GDP per capita was deemed a suitable IV for the vertical media function because the two are positively related, which fulfills the first requirement for a good IV. In wealthier countries more people read newspapers and more people can afford TV and radio sets as well as internet access. The second requirement for a good IV presumes that the IV is not correlated with unobserved factors affecting the dependent variable. Contrary to the first requirement, this second requirement cannot be empirically tested but must be established by theoretical reasoning (Wooldridge 2006: 512). In that sense, it does not seem to be obvious how GDP could be related to something influencing the level and equality of participation as measured here in a sample of more or less established democracies. Nevertheless, there are some doubts as to whether GDP per capita really is an adequate instrumental variable for the vertical media function in the models predicting the level of participation. Estimated without political interest or the media performance variables, GDP has a significant effect on the dependent variable.

Table 8.2 *Explaining political participation by media performance (panel GEE analysis)*

	Level of participation		***Equality of participation***	
	Coef.	(S.E.)	Coef.	(S.E.)
VF	4.236	(1.348) **	-0.332	(1.954)
HF: QND	2.264	(0.806) **	1.649	(1.186)
HF: QLD	-1.074	(0.686)	-0.562	(0.843)
Political interest	0.257	(0.079) **	0.102	(0.070)
PR system	-4.171	(1.726) *	-2.279	(3.253)
Compulsory voting	14.276	(3.453) ***	0.005	(4.520)
Switzerland	-21.380	(2.598) ***	-10.326	(3.351) **
United States	-13.871	(3.099) ***	2.238	(3.963)
Period 1995-99	-2.423	(0.682) ***	1.198	(1.062)
Period 2000-04	-8.579	(1.566) ***	-0.146	(2.571)
Period 2005-08	-14.097	(2.268) ***	-3.844	(3.388)
Constant	42.349	(4.408) ***	63.688	(4.907) ***
N	188		188	

Notes: unstandardized GEE estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; AR(1) correlation structure and robust standard errors; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; PR system = proportional representation system; reference category time periods: period 1990-94.

Aggregate political interest has a similarly positive impact on the extent of participation as in the cross-sectional model, but it is much more significant in the panel data model. The effect is also quite substantial, considering that participation is predicted to be on average about 23 percent higher in countries with the highest aggregate political interest compared to those with the lowest aggregate interest, all else equal. In addition to compulsory voting and Switzerland, we can also observe significant coefficients for the electoral system and the United States dummy now. The negative effect of the PR system seems to confirm the point of Blais (2006: 114) that once analyses move beyond only the most advanced democracies, the often assumed positive influence of PR on participation does not necessarily hold. Finally, it is interesting to see that the time period dummies all have highly significant and increasingly negative estimates. This means that the extent of political participation has been continually decreasing over time which is consistent with most of electoral research (DeBardeleben and Pammett 2009).

Comparing the GEE estimates with those from random effects models (see table A8.1 in the appendix) shows that the results are very similar. The only noteworthy differences are that the PR and U.S. dummies are no longer statistically significant whereas the negative effect of qualitative media diversity reaches statistical significance in the random effects model. This would mean that a more diverse climate of opinion actually keeps citizens from casting votes, demonstrating and signing petitions. As for voting, this relationship has also been found on the basis of individual-level survey data (Müller and Wueest 2011b). Accordingly, by providing them with a well-balanced array of opinions and ideologies, media seem to make it more difficult for citizens to obtain easy cues about how to cast their votes rather than enabling them to find their preferred choice among the range of electoral alternatives. As for alternative forms of participation, it is possible that in a media environment with a high diversity of opinions and therefore many opportunities for all voices to be expressed in the public sphere, citizens have less need to take to the streets. Hence, although qualitative media diversity is desirable from a normative perspective, the result in table A8.1 at least casts doubt on this demand. Of course, some scholars might object that what matters is less the quantity then the quality of political participation (in addition to the equality). Hence, if those fewer citizens who participate in a media environment with a high qualitative diversity do so in a more informed way while the rather unsophisticated citizens stay away from politics then democracy is still well served. Another more optimistic interpretation for the negative association between the level of participation and qualitative media diversity would be that when citizens already feel themselves represented in the public sphere due to high opinion diversity they have lower incentives to participate. Unfortunately, which of these explanations is more likely cannot be answered with the data at hand and has to remain an open question for now.

Contrary to the level of participation, there is not very much to say about the equality of participation, the results for which are shown in the last column of table 8.2 since only one of the

two country dummies is significantly related to the dependent variable. Apparently, the equality of participation is lower than average in Switzerland, which did not surface in the cross-sectional analysis. As opposed to the OLS regressions from table 8.1, none of the media variables have a significant influence on the equality of participation, and this would not change if political interest was dropped from the estimation. The fact that the outlier Cyprus does not lead to a negative significant coefficient for quantitative media diversity in the panel analysis can be explained by Cyprus's particularly low equality of participation in only the first of the four time periods. Finally, the three period dummy estimates are neither unidirectional nor significant, which indicates that unlike the level of participation, the equality of participation does not follow a clear trend over time. The random effects GLS model (see table A8.1 in the appendix) largely confirms these results.

Overall, we can draw the following conclusion as to the influence of structural media performance on political participation: there is evidence for a positive association between media systems' compliance with the vertical function and the level of participation in elections, popular votes, demonstrations and petitions among citizens. H1a can therefore be confirmed. The second hypothesis for participation (H1b), however, has to be rejected. The expected positive effect of the vertical media function on the equality of participation is only reflected in one of the two cross-sectional models above. Similar findings apply to quantitative media diversity, the first component of the horizontal function. While a larger variety of newspaper outlets seems to enhance the amount of political participation, it does not affect the equality of participation. Hence, it appears that structural media performance has a positive influence on the level but not the representativeness of political participation. For this reason, we might infer that a better access to multiple channels of information seems to benefit those segments of the population which are already more inclined to take part in politics. In addition, no effects on

participation have been found for qualitative media diversity, the second component of the horizontal media function.

8.2 Structural media performance and transparency

As argued in chapter 7, media performance is not only supposed to enhance participation but also the transparency of the political system. I expect a positive relationship with transparency predominantly in terms of the vertical function. The underlying assumption is that the more citizens demand and have access to information about political affairs, the more difficult and costly it is for politicians to hide their actions and be corrupt. The present section focuses on testing whether this hypothesis can be supported with the data available. Transparency is simply measured by an index in which higher values indicate lower levels of corruption in the public sector. In addition to the main independent variables, i.e., the media function factors, I control for GDP per capita and media freedom.

The left-hand side of table 8.3 (columns 2 and 3) presents the OLS regression results for the purely cross-sectional data, whereby the dependent and control variables are averaged across the 19 years under study. Because of the high correlations between some of the explanatory variables and therefore multicollinearity in the models, the effects of the media variables are again estimated both with and without the control variables (model I and II, respectively).[96]

As expected in H2, a better fulfillment of the vertical media function, i.e., a higher diffusion of access to the mass media is associated with more transparency – in terms of less corruption – within the political system in both models I and II. Only one of the control variables exhibits a significant estimate as well (see model I). Accordingly, media freedom also has a positive impact on transparency which confirms what many corruption studies have found before (see Brunetti and Weder 2003; Chowdhury 2004; Treisman 2007).

[96] The bivariate correlations between the scores for the vertical function, the media freedom index and GDP per capita are all highly significant and range between 0.70 and 0.80.

Table 8.3 *Explaining transparency by media performance*

	Cross-sectional analysis (OLS) [a]				***Panel analysis (GEE)*** [b]			
	Model I		*Model II*		*Static model*		*Dynamic model*	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
VF	0.949	(0.321) **	1.870	(0.165) ***	0.886	(0.160) ***	-	-
HF: QND	0.313	(0.192)	0.763	(0.165) ***	0.621	(0.223) **	-	-
HF: QLD	-0.171	(0.147)	-0.129	(0.165)	-0.037	(0.074)	-	-
VF (t-1)	-	-	-	-	-	-	1.101	(0.182) ***
HF: QND (t-1)	-	-	-	-	-	-	0.847	(0.200) ***
HF: QLD (t-1)	-	-	-	-	-	-	-0.071	(0.094)
Media freedom	0.068	(0.020) **	-	-	0.010	(0.008)	0.030	(0.015) *
GDP p.c.	0.030	(0.022)	-	-	-0.007	(0.006)	-0.001	(0.009)
Period 1995-99	-	-	-	-	-0.109	(0.088)	-	-
Period 2000-04	-	-	-	-	-0.375	(0.208) +	-0.176	(0.124)
Period 2005-08	-	-	-	-	-0.576	(0.267) *	-0.325	(0.210)
Constant	0.380	(1.500)	6.073	(0.163) ***	5.569	(0.601) ***	4.147	(1.076) ***
Model Properties								
R^2	0.838		0.777		-		-	
Adjusted R^2	0.818		0.762		-		-	
N	47		47		188		141	

Notes: a) unstandardized OLS estimators; b) unstandardized GEE estimators with AR(1) correlation structure and robust standard errors; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, + $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; reference category time periods: period 1990-94 (static model) / period 1995-1999 (dynamic model).

These findings seem to lend support to Lindstedt and Naurin's (2005) theory. They reason that in order to fight corruption, information does not only need to be dug up by free and independent media but also publicized, i.e., „spread to and taken in by a broader audience" (Lindstedt and Naurin 2005: 8). They conceptualize this two-stage mechanism by media freedom[97] on the one hand and education as a proxy for citizens' capacity to absorb information on the other. However, it might actually be more reasonable to assess this latter aspect, which Lindstedt and Naurin (2005) refer to as "publicity", by media penetration. This is exactly what the vertical media function measures. When we compare the sizes of the two significant effects in table 8.3, the vertical function variable turns out to have a slightly larger impact on corruption than the press freedom index. Ceteris paribus, the predicted maximum effect of the

[97] What they actually call "transparency".

vertical media function is 3.54, which amounts to 44 percent of the corruption measure's scale.[98] The respective figure for the media freedom variable, although still quite substantial, is only 37 percent. Thus, the very high R^2 of over 0.80 in table 8.3's model I must be mostly attributed to these two parameters. Media freedom and vertical function media performance together seem to explain most of the variance in the corruption index. None of the other three variables included in this model have a significant influence on corruption.

However, looking at model II, the estimate of one of the horizontal function variables also reaches statistical significance when no control variables are included into the equation. Apparently, it is not only the widespread access to information, but also a larger supply of different sources of information (which in turn seems to be partly a function of media freedom) that leads to more transparency. But compared to the vertical function, the effect of this first horizontal function variable is not nearly as large. At a maximum, it is only associated with a predicted increase in transparency of 9.5 percent. Meanwhile, the vertical function estimate almost doubles its size between model I and model II because it now also absorbs the indirect effect of media freedom. It is therefore not very surprising that model II still has a very good fit. Its R^2 is not considerably lower than the one in model I.

Hence, omitted variable bias does not seem to be of great concern. Nevertheless, the vertical media function variable could be endogenous in the model because of a reverse causality problem. This, at least, is what Adserà et al. (2003) suggest in their analysis of the effect of newspaper circulation on corruption (see chapter 2). Among other things, they try to tackle this problem by an instrumental variable (IV) approach, instrumenting newspaper circulation by education, i.e., the percentage of people who completed secondary schooling. Two different measures for a country's level of education did not prove to be suitable IVs in this study, however, because they do not only correlate with the vertical media function but also with the

[98] The corruption index ranges from 2 to 10 in the 47-country sample studied here.

dependent variable, the corruption index. For this reason, the only way to deal with potential causality issues with regard to hypothesis 2 in this book is to resort to panel data analysis.[99]

The results from the longitudinal analysis are presented in the right-hand section of table 8.3 (columns 4 and 5). In addition to the regular static model with only contemporaneous effects, table 8.3 also presents the results of a dynamic model in which the media function variables are lagged by one time period, i.e., their values from the previous time period are taken. Unfortunately, using lagged variables means that the first time period is lost, which reduces the number of observations from 188 (47 countries x 4 time periods) to 141. Nevertheless, estimating the dynamic model is worthwhile, because it is reasonable to assume that changes in media performance do not immediately influence transparency but rather take effect with some delay. After all, public officials might need some time to adapt their behavior to a modified media environment.

Focusing on the static model first, the results look much like the ones from the cross-sectional OLS regressions. Accordingly, the positive effect of vertical media function performance on transparency is also apparent in the panel analysis.[100] Moreover, quantitative media diversity, the first of the two horizontal function variables, has a highly significant estimate in the panel models as well, even when media freedom and GDP per capita are controlled for. The control variables themselves are not significantly related to the outcome variable anymore. This is surprising, considering that media freedom is a strong factor explaining transparency in the cross-sectional analysis. I will come back to this shortly. As for the time period dummies, at

[99] The two education indicators considered are, on the one hand, the percentage of people over 15 who have completed tertiary education and, on the other hand, an education measure by the Human Development Index consisting of adult's expected and mean years of schooling. If the endogeneity tests are performed with these two indicators as IVs anyway, the results indicate no endogeneity in the model.

[100] If the same model was estimated without media freedom and GDP per capita (because of likely multicollinearity), the coefficient would have about the same size but be significant at a level of 1 percent.

least the last two time period dummies have significant negative estimates. This indicates that corruption actually increases over time. The coefficient sizes, however, are quite small.

This time trend is also visible when the same model is estimated by a random effects approach (see table A8.2 in the appendix), and all other inferences drawn from the GEE model still hold in the GLS model as well. In addition, media freedom has a positive influence on transparency in table A8.2, which is in line with the cross-sectional analysis.

Moving on to the dynamic model in the last column of table 8.3, the results indicate that a better media system performance serves democracies in terms of transparency particularly in the long run. Both the vertical media function and quantitative media diversity, i.e., the variety of newspapers available in a country, have a lagged positive impact on transparency. Not only are the estimates highly significant but also somewhat larger compared to the static model. This suggests that both media functions become more powerful determinants of transparency after some time has passed. These strong lagged effects allow us to conclude with more confidence that the causal link between structural media performance and transparency really leads from the former to the latter. As discussed before, media and democracy are very much intertwined which often makes it hard to identify cause and consequence. Although this problem generally seems to be less virulent in the case of the relationship between media and transparency (see the respective discussion in chapter 7), the findings of the lagged models are nevertheless comforting. In addition to the media performance variables, it is interesting to see that media freedom is positively and significantly associated with transparency in the dynamic as opposed to the static model. This might be due to the fact that the first time period is missing in the dynamic analysis. Indeed, a closer inspection of the association between media freedom and transparency for different time periods reveals that the two variables are not strongly related to each other in the first time period, which explains the insignificant estimate of the control variable in the static model of table 8.3. The reason for this weak relationship in the first time period, which covers the years 1990 to 1994, is that the press freedom index was

measured in a very undifferentiated way up to 1993 so that a number of countries received a higher score than their level of corruption would assume.[101] Contrary to media freedom, the time trend observed in the static version is not evident anymore without the first five-year period.

This is in fact the only difference to the dynamic random effects model for transparency shown in table A8.2. All the other findings are essentially the same. The impact of the first time period on the effect of press freedom can actually also be observed in the GLS models. Even though media freedom is statistically significant even in the static model of table A8.2, the estimate is twice as large and more significant in the dynamic model.

In sum, the analyses discussed in section 8.2 clearly lend support to hypothesis 2. As expected, countries with a higher fulfillment of the vertical media function also tend to have lower levels of corruption, i.e. more transparency. This relationship has been found in all of the four regression models presented in table 8.3. Moreover, the results from the longitudinal analyses show that this positive effect is not only contemporaneous but actually comes to fuller force with a certain time delay. In addition to the vertical function, media performance in terms of quantitative diversity is also positively related to transparency, especially in a longer-term perspective.

8.3 Structural media performance and the civil society

The third hypothesis derived in chapter 7 postulates that the strength of a country's civil society, or rather its degree of political and public interest group organization, is co-determined by its media system's compliance with the horizontal media function. The aim of section 8.3 is to test this assumption. But although mainly the horizontal function is of interest, all media vari-

[101] Up to 1993, Freedom House only coded press freedom according to the three categories "not free", "partly free" and "free". These categories were transformed into scores, but all countries belonging to the same category had to be assigned the same score. Moreover, most of the 47 countries studied here belonged to the category "free" or "partly free".

ables are included as further independent variables. Additionally, I control for the share of citizens with generalized trust, GDP per capita as well as the Scandinavian region and former socialist countries.

Table 8.4 *Explaining civil society strength by media performance*

	Cross-sectional analysis (OLS) [a]				***Panel analysis (GEE)*** [b]			
	Model I		*Model II*		*Static model*		*Dynamic model*	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
VF	2.765	(2.800)	5.644	(1.372) ***	4.902	(1.241) ***	-	-
HF: QND	4.343	(1.436) **	4.898	(1.166) ***	3.182	(0.640) ***	-	-
HF: QLD	-1.398	(1.195)	-1.092	(1.203)	-2.784	(1.133) *	-	-
VF (t-1)	-	-	-	-	-	-	2.105	(1.709)
HF: QND (t-1)	-	-	-	-	-	-	3.678	(0.896) ***
HF: QLD (t-1)	-	-	-	-	-	-	-2.163	(0.739) ***
Generalized trust	0.320	(0.136) *	-	-	0.011	(0.062)	0.077	(0.060)
GDP p.c.	-0.031	(0.183)	-	-	-0.027	(0.046)	-0.004	(0.047)
Nordic countries	13.696	(4.646) **	17.689	(4.487) ***	20.319	(4.112) ***	20.645	(4.268) ***
Socialist past	6.954	(3.402) *	6.196	(3.245) +	6.377	(2.082) **	1.118	(2.830)
Period 1995-99	-	-	-	-	-3.650	(0.736) ***	-	-
Period 2000-04	-	-	-	-	-8.241	(1.405) ***	-2.957	(0.683) ***
Period 2005-08	-	-	-	-	-11.832	(1.825) ***	-5.165	(1.237) ***
Constant	12.122	(5.557) *	21.765	(1.341) ***	27.348	(2.336) ***	20.803	(2.837) ***
Model Properties								
R^2	0.729		0.689		-		-	
Adjusted R^2	0.679		0.650		-		-	
N	46		46		184		138	

Notes: a) unstandardized OLS estimators; b) unstandardized GEE estimators with AR(1) correlation structure and robust standard errors; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, + $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; Nordic countries = value 1 for Denmark, Finland, Iceland, Norway and Sweden, value 0 otherwise; Socialist past = value 1 for Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Slovakia and Slovenia, value 0 otherwise; reference category time periods: period 1990-94 (static model) / period 1995-1999 (dynamic model).

As always, the analyses start with simple cross-national OLS regressions on the basis of the averaged data as well as the latent media factors estimated from the averaged data (see left-hand section of table 8.4 above). Because tests have indicated that multicollinearity exists between generalized trust, GDP per capita and especially the vertical media function variable,

the cross-sectional analysis comes again in two different versions.[102] Model I in table 8.4 includes all four control variables, model II only the two regional dummies.

Looking at the OLS estimates, the most important result is the positive significant effect of quantitative media diversity on civil society organization. Hence, in line with H3 a higher degree of horizontal media function performance, at least with respect to its first component, is related to a stronger civil society. This even holds in model I where all control variables are included into the estimation. But the coefficient is obviously more significant in model II, where generalized trust and GDP are dropped from the equation.

In substantive terms, quantitative media diversity, i.e. a larger supply of different print outlets, increases the civil society scale by about a predicted 40 percent at a maximum, all other factors held constant. The effect has in fact roughly the same size in both models I and II.

However, the second component of the horizontal function termed 'qualitative media diversity' has no significant relationship with the dependent variable and thus runs counter to theoretical assumptions. The diversity of opinions or, in other words, the balance of ideological positions in the press system does not appear to play a role for either political participation, transparency or the strength of the civil society. This is rather surprising. It could have been expected that people's decision to join interest groups would be rather promoted by an undistorted public sphere (qualitative diversity) than the mere plurality of news sources (quantitative diversity), because the former seems to be a better guarantee that such groups really have a public platform.

In addition to quantitative media diversity, the vertical function variable also exhibits a significant and positive estimate, but only in model II. Thus, when the multicollinearity between this predictor and GDP per capita as well as interpersonal trust is eliminated, the indicator for

[102] Bivariate correlations between the vertical function scores, GDP per capita and generalized trust again range from 0.70 to 0.80.

the vertical media function reaches statistical significance too. Its impact is comparable to quantitative media diversity.

As for the control variables, only GDP per capita does not exhibit a significant estimate. Generalized trust, by contrast, has the anticipated positive effect. In line with social capital theory, people's involvement in intermediary organizations is related to the degree to which they trust each other. Furthermore, the two regional dummies also have quite strong impacts on the dependent variable, and their coefficients are significant in both models. This applies to the Nordic countries dummy in particular. Ceteris paribus, the civil society index is about 14 scale points higher in Scandinavian countries, which amounts to about 28 percent of its total range. Similarly, even though it is not nearly as strong in terms of significance level and actual size as the Nordic dummy the one for former socialist countries is statistically significant in both models. Including the two regional dummies is therefore clearly very important.

Finally, it is interesting to see that the R^2s are not much higher in model I. This suggests that generalized trust and GDP do not add much in explaining the strength of a country's civil society, at least not directly. They may, however, have indirect effects on civil society organization through the media performance variable.[103] But either way, it can be noted that the goodness-of-fit of both models is quite satisfying. This could lead to the conclusion that omitted variable bias and consequently a violation of the exogeneity assumption are rather out of the question in the models from table 8.4. Nevertheless, in order to assess whether this is indeed the case I performed a test for endogeneity of the two horizontal media function factors according to a procedure proposed by Wooldridge (2006: 532f.). For this purpose, the number of journalists in a country in percent of the total population was used as an instrument for

[103] In fact, as shown in chapter 5, GDP strongly affects the vertical media function, and so does generalized trust. In addition, GDP per capita seems to have a positive influence on quantitative media diversity.

quantitative media diversity and the size of the population as an instrument for qualitative media diversity.[104] The results indicate that there is no endogeneity in table 8.4.

In a second step, the relationship between structural media performance and the strength of the civil society in terms of interest group organization is also tested in a panel analysis framework. The results are presented in the last two columns of table 8.4. [105] In an attempt to clarify the direction of causality between media and civil society, I do not only estimate a static but also a dynamic model in which the media function variables enter the equation in lagged form (by one time period).

As for the first of the two media performance variables, the panel models are partly in line with the two OLS regressions. Like in the cross-sectional analysis, the first component of the horizontal media function, quantitative diversity, has a positive influence on the strength of the civil society in the model. Moreover, its impact is not only immediate but also longer term, as the dynamic model coefficient indicates. The lagged estimate of quantitative media diversity is actually somewhat larger than its static counterpart. We might therefore conclude that a higher plurality of different newspapers really increases the degree of associational memberships in societies, both in the short and the longer run.

Surprisingly, qualitative media diversity has a significant negative relationship with civil society in the panel analysis, both short- and long-term. While the coefficient is more sizeable in the static version, its statistical significance increases in the dynamic version. These findings are really quite puzzling considered that this variable has no significant impact on civil socie-

[104] Both of these indicators proved to fulfill the first requirement for an IV (be correlated to the endogenous variable for which it is supposed to serve as an instrument). Quite plausibly, the more media outlets exist, the more job opportunities there are for journalists. Why there is a statistical association between population size and qualitative media diversity is unclear. Both IV candidates are further expected to fulfill the second requirement as well (be uncorrelated to the unobserved factors included in the error term).

[105] The control variables, generalized trust and GDP per capita, are included in both panel models since the results are almost the same whether they are excluded or not.

ty in the cross-sectional analysis (although already negative signs). Moreover, its negative direction suggests that a more diverse and balanced climate of opinion actually prevents collective organization. Since this completely contradicts the theoretical expectation with regard to the interaction between the horizontal media function and interest group organization, these results are therefore difficult to interpret, and any reasonable explanation would require a more in-depth analysis. At this point, we can only provisionally conclude that rather than promoting the organization of diverse interests within the society, a high diversity of opinions within the media system might actually work as a compensation for low degree of civil society organization. In other words, if the media system already reflects a variety of viewpoints, the formal organization of interests might be less necessary.

Like in the cross-sectional OLS models, vertical media function performance is positively associated with a strong civil society. The effect, however, is only contemporaneous. Thus, in countries with a better access to mass media for the whole population, more people tend to join interest groups. Yet a better access to mass media does not lead to more interest group organization at a later time, i.e., in the long run. For this reason, we should probably not assume causality but only association in this case, even though the lagged vertical function variable would be marginally significant if the two control variables it is highly correlated with were excluded from the model.

Looking briefly at the control variables, generalized trust is not significant anymore in the panel models. But the two regional dummy variables retain their statistical strength, with the exception of the dummy for the former socialist countries in the dynamic model. This can most likely be explained by the fact that the first time period is omitted when lagged variables are included in the estimation. Trade union density was of course particularly high in former socialist countries before and shortly after their democratic transitions in the early 1990s. Afterwards, it dropped to levels comparable to other countries. Thus, the positive effect of this variable disappears when the first five-year period is excluded. Finally, it is interesting to see

that all the estimates of the time period dummies have negative signs and are highly significant. Hence, just like the level of political participation, the degree of civil society organization seems to be constantly decreasing over time as well.

The results from the GEE estimation can be considered quite robust since the estimates are almost the same in regular random effects GLS models (see table A8.3 in the appendix). A few differences in significance levels can be observed but these are really negligible.

To summarize, the findings from the previous analyses are somewhat contradictory with respect to hypothesis 3. On the one hand, media system performance in terms of the first component of the horizontal function indeed appears to enhance the strength of the civil society. The respective effect was found in all regression models in table 8.4. On the other hand, media system performance in terms of the second component of the horizontal function seems to have a negative impact on interest group organization. This unexpected result was evident only in the longitudinal analysis and is difficult to explain. Thus, whether H3 can be confirmed or not ultimately remains inconclusive. However, the fact that the positive effect of quantitative media diversity outweighs the negative impact of qualitative media diversity because its coefficients are both more significant and larger, might lead us to rather confirm than reject hypothesis 3.

In addition, a positive effect on civil society organization was also observed for vertical media function performance, but only in the cross-sectional and the static panel analysis. Therefore, assuming causality is not entirely warranted. Instead, we should simply state that there is a relationship between the two phenomena. With respect to the control variables, a dummy variable for the Scandinavian countries has proven to be a very strong predictor in all four regression models. This is not very surprising, given that the dependent variable consists of union density and membership in environmental organizations. Furthermore, measured by these

two indicators, the civil society also tends to be stronger in the former socialist countries of Eastern Europe and in countries with higher degrees of generalized trust among their citizens.

8.4 Structural media performance and political representation

Finally, the last hypothesis in chapter 7 deals with the adequacy of political representation in democracies, both in a substantive and descriptive sense. Hence, the dependent variable is an index composed of issue-congruence and the degree of political rights and access to political offices for minorities. Similar to the assumptions revolving around the civil society, I expect that mainly the horizontal function is important here. Hence, a better fulfillment of the horizontal media function should help to ensure that the interests of all citizens are adequately represented in the arena of political decision-making. Section 8.4 seeks to provide empirical evidence for this supposed relationship.

In addition to the usual three media function factor scores, two control variables are added to the set of explanatory variables. Once again, a country's share of politically interested citizens and whether elections are based on the principle of proportional representation probably need to be accounted for. The first model in table 8.5 (column 2) presents the cross-sectional OLS models estimated to predict representation. Despite a potential problem of multicollinearity between political interest and the vertical function variable (see footnote 93), the results are pretty much the same whether the control variable is included or not.[106] Hence, for the sake of simplicity, only the model with political interest is shown.

First of all, it is evident that the model has quite a poor fit. Obviously, the regressors do not explain much of the variation in the dependent variable. Nevertheless, both media performance in terms of the vertical function and the first component of the horizontal function are statistically associated with representation. Thus, as expected in H4, a greater quantitative

[106] This also applies to the panel models for political representation.

diversity in the press sector, i.e. more newspaper titles per capita and more newspaper import, have a positive influence on how adequately citizens are represented in the political system.

Table 8.5 *Explaining political representation by media performance*

	Cross-sectional analysis (OLS) [a]		***Panel analysis (GEE)*** [b]			
			Static model		*Dynamic model*	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
VF	9.631	(3.506) **	8.002	(1.986) ***	-	-
HF: QND	5.221	(2.380) *	5.525	(1.252) ***	-	-
HF: QLD	1.658	(2.386)	0.448	(1.174)	-	-
VF (t-1)	-	-	-	-	9.258	(2.247) ***
HF: QND (t-1)	-	-	-	-	6.316	(1.912) ***
HF: QLD (t-1)	-	-	-	-	4.145	(2.426) +
Political interest	-0.294	(0.276)	-0.163	(0.101)	-0.164	(0.115)
PR system	6.279	(6.346)	7.543	(3.767) *	4.996	(5.377)
Period 1995-99	-	-	1.503	(1.247)	-	-
Period 2000-04	-	-	-0.959	(2.296)	-2.076	(1.574)
Period 2005-08	-	-	-5.349	(3.127) +	-7.023	(2.525) **
Constant	77.095	(13.618) ***	71.570	(6.049) ***	78.015	(7.551) ***
Model Properties						
R^2	0.297		-		-	
Adjusted R^2	0.209		-		-	
N	46		184		138	

Notes: a) unstandardized OLS estimators; b) unstandardized GEE estimators with AR(1) correlation structure and robust standard errors; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, + $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; reference category time periods: period 1990-94 (static model) / period 1995-1999 (dynamic model).

The impact of vertical function performance, however, is actually stronger.[107] Apparently, not just information from a diversity of news sources but generally access to information enables citizens to choose political parties and candidates who represent them better. Once again, no significant effects are found for qualitative media diversity, and neither for political interest or the electoral system.

[107] The predicted maximum effect of quantitative media diversity is 23.240, which amounts to 38 percent of the dependent variable's total range. To compare, the respective numbers for the vertical function are 35.968 and 58 percent.

Like in the cross-sectional analyses for political participation and civil society organization, I checked whether the OLS estimates in table 8.5 are biased because of an endogenous explanatory variable. Particularly quantitative media diversity could be jointly affected by an unobserved factor together with the dependent variable. And given the very low R^2, this suspicion of omitted variable bias seems even more warranted. Hence, a test for endogeneity was performed, using GDP per capita as an instrument for the first of the two horizontal function variables. GDP per capita was already chosen as an instrumental variable for the vertical media function when testing for endogeneity in the models predicting political participation, but it might also be applied here as an IV for quantitative media diversity.[108] Yet once more, the test statistics for the cross-sectional model in table 8.5 revealed that endogeneity does not seem to be a cause for concern.

Moving to the longitudinal analysis of political representation in table 8.5 (columns 3 and 4), it is interesting to see that the static model shows very similar results to the purely cross-sectional findings. Accordingly, the first two media performance variables have a positive impact on representation, and the vertical function still has a larger marginal effect. The third media performance variable as well as political interest again has no significant relationship with representation, and the coefficients are also considerably smaller compared to the OLS model. By contrast, the dummy variable measuring whether countries have a proportional representation system or not exhibits a significant estimate in the panel analysis. As anticipated, the issue-congruence between electorates and their representatives as well as the access to political power for minorities is better in PR systems. Furthermore, only the last time period dummy has a marginally significant estimate in the static model which means that the degree of representation does not considerably deviate from the early 1990s in later periods.

[108] Regressing quantitative diversity on GDP gives a significant estimate for GDP which means that GDP fulfills at least one of the two criteria for a good IV.

As the last column in table 8.5 shows, media performance in terms of the vertical function and in terms of quantitative media diversity does not only have an immediate but also has a positive long-term impact on representation since the respective variables turn out to be statistically significant in lagged form as well. In addition, a lagged positive and weakly significant effect can also be observed for the second of the horizontal function indicators, measuring qualitative media diversity, i.e., external and internal opinion diversity within the press system. This is quite remarkable if we consider that only insignificant or negative estimates resulted for this variable so far. The fact that qualitative diversity is only significant in the dynamic model indicates that a higher diversity of opinions does not contemporaneously lead to a better substantive and descriptive representation of the electorate in the political sphere, but only after some time passes. This is actually quite plausible. When political viewpoints are more equally represented within the press system, it is more likely that citizens find the representatives best in line with their preferences, which in turn, should promote issue-congruence. This process, however, does not take place immediately and overnight but rather seems to occur over a longer period of time. Regardless, the positive direction of the relationship can be taken as evidence in support of H4.

Comparing the static to the dynamic model reveals that the coefficients are somewhat larger in the dynamic model, especially when it comes to qualitative media diversity. Hence, the lagged effects seem to be generally stronger than the static effects. However, the PR system dummy variable is not statistically significant anymore in the dynamic model. Interestingly, the time period dummies from the dynamic model in table 8.5 show that representation seems to deteriorate over time. Hence, in contrast to especially the late 1990s, representation is significantly lower between 2005 and 2008. So even though representation increases between the first and second time period, it declines continuously thereafter.

Finally, estimating the panel models by a random effects instead of a GEE approach gives almost identical results for the media performance variables (see table A8.4 in the appendix).

The most notable difference is that the positive lagged effect of qualitative media diversity, the second component of the horizontal media function, is highly instead of only marginally significant in the GLS model. Moreover, contrary to the static GEE model, it is political interest and not the electoral system which has a significant effect.

Overall, hypothesis 4 about the influence of media performance in terms of the horizontal function on representation is largely confirmed. The first component of the horizontal function, quantitative media diversity, exhibits a positive impact on representation in all three regression models presented in table 8.5. Furthermore, the second horizontal function component, qualitative media diversity, was found to have only a lagged effect on the dependent variable, but it is positive as well. In addition to the horizontal function, the vertical function also turns out to be positively related to representation, no matter in which regression model. We might therefore argue that structural media performance is generally important for the quality or adequacy of political representation. However, this conclusion needs to be put in perspective by the fact that the goodness-of-fit of the cross-sectional analysis is very low.

8.5 Conclusion

The aim of chapter 8 was to explore the relationship between different aspects of democracy and media performance, for practical reasons only with respect to the structural level and the larger 47-country sample. The theoretical expectations guiding the analyses were developed in chapter 7, while this chapter exclusively focused on providing empirical evidence in order to confirm or reject the assumptions.

Democracy is a complex, multidimensional phenomenon (Bühlmann et al. 2011a). The analyses in this chapter have therefore not dealt with the concept ‘democracy’ as a whole but revolved around four elements or so-called functions of democracy for which democratic media performance seemed to be most important from a theoretical point of view. These are political participation, transparency, civil society organization and political representation. However,

these four democratic functions were not assumed to be equally affected by the two media functions. Instead, the hypotheses in chapter 7 posit that participation and transparency should mainly be related to the vertical media function. Civil society and representation, in turn, were anticipated to be more closely associated with the horizontal media function. Nevertheless, all of the regression analyses presented above include both media functions, i.e., all three latent factors from chapter 5, as independent variables.

Overall, most of the hypotheses from chapter 7 can at least be tentatively confirmed even though not every regression model produced the expected results. While different models for the same dependent variable did not necessarily contradict each other they did not always support each other either. In addition, the distinction between the two media functions with regard to their impact on democracy is not clear-cut since significant results for both functions were observed for all aspects of democracy examined in this chapter.

The findings with regard to political participation suggest that, in line with H1a, structural media performance in terms of the vertical function has a positive influence on the level of participation, as measured by turnout in elections and direct-democratic votes as well as in demonstrations and petitions (see section 8.1). This effect was found in all regression models. Media systems' fulfillment of their democratic functions is therefore indeed important to promote civic engagement.[109] As for the equality of participation, however, a marginally significant impact of the vertical media function could only be observed in cross-sectional model II without the control variables. This second indicator for political participation measures how representative participants in elections, demonstrations and petitions are for the population at large in terms of gender, age, income and education. Hypothesis 1b thus has to be rejected. Moreover, the first component of the horizontal media function (quantitative diversity) seems

[109] Among other factors, as the rather low R^2s indicate.

to be weakly but positively associated with the level of participation as well, but negatively with the equality of participation in the cross-sectional analysis.

As shown in section 8.2, the vertical media function also turns out to have both a contemporaneous and a lagged positive effect on transparency, which was measured by the absence of corruption. This lends support to hypothesis 2. In addition, the quantitative component of the horizontal media function also seems to be a significant determinant of transparency.

The analyses discussed in section 8.3 do neither allow for clear confirmation nor rejection of H3. The hypothesis expected a generally positive relationship between structural media performance of the horizontal function and the strength of the civil society, in terms of union density and membership in environmental associations. But the two horizontal function media variables provide conflictive results. While quantitative diversity exhibits the anticipated effect in all of the four regression models presented in table 8.4, the estimates for qualitative diversity point in the opposite direction and are even statistically significant in the longitudinal analysis. As discussed above, it is difficult to decide what to make of these puzzling results without further analysis. However, given that the effect sizes for quantitative diversity are larger, there seems to be more support for than against hypothesis 3. Beside the horizontal function, a positive relationship with the degree of interest organization within a country was also found for the vertical media function, but only in two of the four models.

Finally, H4 argued that a stronger compliance of media systems with the requirements of the horizontal media function should increase the adequacy of political representation, which was measured by issue-congruence and the political inclusion of minorities. This hypothesis can be largely confirmed. Both components of the horizontal media function have positive effects on representation although only with some time delay in the case of the qualitative diversity component. Hence, this variable only exhibits a significant coefficient in the dynamic panel model, where it is included in lagged form (see table 8.5). Again, not only the horizontal but

also the vertical media function proved to be an important predictor of a better representation of citizens in the political decision-making arena. Hence, the relationship between media performance and representation not only operates in the way anticipated in the last hypothesis, but is positive in general.

In sum, the results presented in this chapter provide an interesting picture of the interplay between media and democracy. Since notable empirical connections were found between the two concepts, it seems that the public debate about whether mass media fulfill their democratic role or not is indeed important and worth holding. This is all the more true if we consider that mass media and their democratic performance might not only have an impact on the four democratic functions that this study focused on. As already mentioned in the previous chapters, further aspects of democracy could be affected by media performance as well. For instance, a better availability of information by a larger variety of different news sources might also help to safeguard individual liberties and the rule of law. But since these are generally better guaranteed and thus less pressing issues in established democracies, I decided to turn my attention to those elements of democracy which vary more in the countries under investigation, namely participation, transparency, the civil society and representation.

In concluding, it must also be noted that the present analyses only allow for a rough overview of the subject in question and they undoubtedly have their limitations. In order to test each of the hypotheses 1 to 4 in an absolutely solid way, more detailed analyses would be necessary. For example, estimating interaction effects between the media variables and/or the control variables could have added explanatory power. Moreover, although I tested for endogeneity in the regression models where this seemed to be possible, this problem can nevertheless not be ruled out entirely. Future studies will have to find better and more instrumental variables so that not only omitted variable but also reverse causality issues can be solved (e.g. by means of simultaneous equation estimation). Finally, it is unfortunate that the hypotheses could only be

studied with regard to media performance on the structural but not the content level, due to the low number of countries for which I was able to generate content analysis data. One option to countervail this limitation would have been to conduct qualitative analysis. However, such a strategy was not adopted because this book follows a clear quantitative approach. A further idea to bypass the neglect of the content level in part II of the present study would be to use survey data in which respondents can be nested into newspapers and then perform multilevel analysis. However, this would require that respondents are asked which newspapers they read, which is rarely done. By now, most international surveys like the World Values Survey or the European Social Survey, and national election studies have recognized the importance of mass media and at least include very general questions about the type of information sources that citizens most often turn to (e.g. electronic vs. print media). But questions about the use of specific news sources, such as newspaper titles or television programs, are the exception. This is very deplorable, since such items would be of great benefit in order to properly link individual behavior and media content in studies of media effects.

Chapter 9:
Conclusion

This book revolved around the question of the role of mass media in modern democracies. Mass communication is indispensable for today's large-scale societies, and television, newspapers and the radio are the most important sources of information for citizens all around the globe. But while there seems to be great consensus about what this means for dictatorships and countries in transition, the contribution of mass media to the well-functioning of more mature and established democracies is highly debated among scholars, politicians and practitioners alike.

There is usually no doubt that mass media help maintaining the system and the power of the government in authoritarian regimes where they are – at least for the most part – tightly controlled by the state. For example, one only has to think of the pervasive state propaganda disseminated by North Korean media to keep the country's citizens in line. Norris and Inglehart (2010) try to show that such propaganda not only muzzles dissent but actually influences citizens' perception of the state and its leadership. The authors find that in countries with low degrees of media freedom, citizens who are more highly exposed to the media express greater confidence in state institutions, less support for democratic principles and more pride in the nation, while the opposite or no effects can be observed in countries with a high degree of media freedom. Similarly, there is broad agreement that mass media have greatly contributed to promoting democratization processes in most of the "third-wave" countries (Huntington 1991). Gunther and Mughan (2000: 412), for instance, point out that in many countries, like Chile, former East Germany or Spain, slowly liberalizing mass media helped eroding „the credibility and legitimacy of the nondemocratic regime", developing „pluralism in political attitudes, preferences and partisan alternatives" and resocializing „both masses and elites to

the new democratic rules of the game" during their respective transitions.[110] More recently, the importance of new social media for the uprisings in Tunisia and Egypt during the so-called Arab spring 2011 has been highlighted (Howard and Hussain 2011; Lotan et al. 2011).[111]

But as outlined in chapter 1 of this study, when it comes to the question of whether free and independent mass media serve or rather harm democracy once it is established, opinions are strongly divided within the scientific community. On the one hand, adherents of what is often referred to as the 'media malaise' perspective argue that because mass media in established democracies mostly operate according to market principles, they disregard their democratic duties. This is supposed to have serious repercussions for the quality of democracy, such as political apathy, alienation, cynicism and ignorance (e.g. Bennett 2003; Bennett and Entman 2001; Habermas 1962, 2006; Cappella and Jamieson 1997). On the other hand, supporters of what rather seems to be the minority position and might be termed the 'mobilization' perspective hold that the normative expectations imposed on both the media and citizens by media malaise theorists are too high (e.g. Graber 2003, 2004; Zaller 2003). In what they perceive to be a more realistic assessment, mobilization theorists conclude that media provide enough information for citizens to recognize when their interests are in danger, and that media consumption actually increases civic engagement (e.g. Norris 2000; Schudson 1998).

This book suggested that what both sides in this ongoing debate have in common is that their respective accounts and claims are based on insufficient empirical evidence. Systematic analyses of democratic media performance across a wide range of countries are rare if not inexistent. This was the starting point of the present study. Although the value of the rather small number of large-scale comparative studies of media and democracy available should not be

[110] In that sense, the governing elite actually dug its own grave when they loosened their tight grip over the media (Gunther and Mughan 2000: 412).

[111] Although scholars disagree on how big an impact social media have actually had.

disregarded, their shortcomings must not be neglected either. As elaborated in chapter 2 of this book, previous cross-national evaluations of democratic media performance as well as of its impact on various aspects of democracy have had a rather limited focus and/or suffered from methodological weaknesses.[112] Hence, the basic motivation for this book was to provide more comprehensive empirical insights into democratic media performance and its effects for a broad number of countries, in order to possibly enrich the scientific discourse.

More specifically, two main research questions guided the analyses in the preceding six chapters. The first question focused on how democratic media performance can be measured systematically and in a comparative perspective, and how countries differ accordingly. Second, I was interested in whether these differences in media performance actually matter or, in other words, how mass media affect various elements which are crucial for a well-functioning democratic process. These two questions implied a division of the book into two parts. Hence, in line with the first research question, part I dealt with the conceptualization and implementation of a comparative framework to assess media performance, i.e., mass media's fulfillment of their democratic functions. In part II, the effects of media performance, as measured in part I, on aspects of the quality of democracy were studied to answer the second research question. In the following, I will summarize the main expectations and findings from the two parts and discuss their wider implications.

9.1 Assessing democratic media performance

The first chapter of part I developed a theoretical model of democratic media performance (see chapter 3). In order to measure and compare them, it was first of all necessary to clarify what role or functions mass media are supposed to fulfill in a democracy. Normative standards serve well as benchmarks for empirical assessments (Bennett and Entman 2001; Norris and Odugbemi 2010). Thus, I reviewed various normative contributions about democratic

[112] To clarify, for the most part only studies comparing at least ten countries were considered.

media functions in light of two broad ideal-type models of democracy. I argued that according to the liberal tradition of democracy, media mainly need to deliver information about public affairs and electoral alternatives, as well as to act as public watchdogs which scrutinize political decision makers. Most important from the perspective of the participatory theory of democracy, by contrast, is that media provide a public platform and give the plurality of interests within a society an equal voice. Based on these considerations, a two-dimensional concept of mass media's democratic requirements was derived, consisting of what I call the vertical and the horizontal media function. On the one hand, media need to disseminate information about the activities and decisions of political office-holders, especially about official misconduct, to as many citizens as possible. Since this suggests a top-down communication process, it is termed the vertical media function. On the other hand, in modern mass societies, media are supposed to constitute an open public sphere which reflects the diversity of the society. In other words, media should allow all existing groups to publicly express their opinions and demands and engage in discourses with others on a level playing field. Hence, media need to enable the communication among different sections of the society on equal terms, which is why this notion was coined the horizontal media function in chapter 3.

In order to develop the conceptual model further and make it applicable for empirical analyses, the two media functions were broken down into specific components and variables. To this aim, I further distinguished between two different levels of analysis. Following McQuail (1992) and Voltmer (2000), media performance can be assessed on the media system or structural level as well as on the level of media outlets' news coverage, i.e., the content level. Previous studies have usually only included one of the two levels (see chapter 2). For this reason, the goal of the present study was to consider both levels so that a more comprehensive evaluation of mass media's compliance with the vertical and the horizontal media function would be possible. Chapter 4 presented the operationalization of the two media functions according to

the components and variables discussed in the preceding chapter and outlined the research designs and data collection procedures applied for each of the two levels of analysis.

For the structural level, a large amount of secondary data on media system characteristics was collected. However, after a thorough revision of the data, I decided that working with only few but valid, reliable and largely complete indicators is preferable to having a very large but unmanageable and unbalanced dataset. Hence, I settled on a core set of nine indicators which are available for 47 established democracies worldwide and for almost two decades (1990 to 2008). The five indicators for the vertical media function focus on the communication infrastructure, i.e., how widely the access to information from print, broadcast and online news sources is distributed across a country's population. The four indicators for the horizontal media function measure the diversity of different outlets in a country's print sector, both in quantitative and qualitative terms. While the former simply accounts for the number of different newspaper titles as well as the amount of foreign newspapers imported, the latter reflects to what degree the press system is characterized by an ideological balance (external opinion diversity) and a high share of politically neutral outlets (internal opinion diversity). Since the horizontal function only includes press indicators, three additional indicators were used in a reduced country sample consisting of 24 European cases. Two of them assess the number of television stations in a country and the share of households receiving foreign news channels, in order to reflect the quantitative diversity of the broadcast sector. The third indicator measures the strength and independence of public service broadcasting compared to private broadcasters, which is a proxy for qualitative television diversity, or internal opinion diversity to be more precise.

On the basis of these two sets of indicators and countries, chapter 5 examined media performance in terms of the vertical and horizontal function on the structural level. In a first step, factor analyses were performed to test whether the theoretically deduced media functions are

empirically valid or, more specifically, whether the indicators are really correlated in the expected way. Quite remarkably, the results indicated that this is to a large extent the case. As anticipated, the indicators derived for the two functions belong to different latent dimensions. Moreover, in line with the assumptions of the conceptual model, the vertical function exhibits a one-dimensional structure, since all of its five indicators load onto the same factor. The four core indicators of the horizontal function, by contrast, split into two factors. However, these conform to the two components of the horizontal function – quantitative and qualitative media diversity – which again demonstrates that the empirical reality is not far off from the theoretical model defined in chapter 3. When the factor analysis was conducted with twelve instead of the nine core indicators and the sample thus reduced from 47 to 24 countries, further interesting observations could be made. Whereas nothing changes with respect to the vertical function, the quantitative diversity component of the horizontal media function subdivides into two factors, one for each of the two types of media (print vs. television). Additionally, although qualitative media diversity still only consists of one latent dimension, the factor loadings of the press and the broadcast sector indicators point in opposite directions. These deviating results are very interesting. They suggest that the two media sectors operate according to two different logics in certain respects. Hence, at least in terms of the horizontal function, a good democratic performance of the press system does not mean that the same applies to the broadcast system, and vice versa. In fact, the contradicting factor loadings for the qualitative diversity dimension even indicate that there seems to be a tradeoff between public service broadcasting and the press with regard to the diversity of opinions[113] or, rather, that one compensates the deficiencies of the other. This can be illustrated by the extreme case of Great Britain where the imbalanced press system with a comparatively large conservative bias is outweighed by the country's strong, independent and much praised public broadcaster, the BBC.

[113] Mainly external diversity of opinions.

In a next step, based on the factor scores for the media functions and their components, media performance was compared by means of descriptive and cluster analyses across the 47 and 24 countries, respectively. The main interest was to find out which countries perform well on which function and whether specific patterns of media performance can be observed. Most importantly, these analyses showed that there is a large variation of media performance across countries with respect to both media functions. Hence, the media systems of established democracies are not equally well or equally badly equipped to serve their democratic duties. This might call into question the general and sweeping assumptions that both the media malaise and the mobilization perspectives make about the state of media and democracy. Moreover, ranking the countries according to their value on the different media performance dimensions gives very different pictures. Countries that score high on one media function do not necessarily perform well with respect to the other too. Thus, different patterns of media performance in terms of the vertical and horizontal function exist. This very important finding was also confirmed by cluster analyses. Accordingly, several types of media performance were identified. First of all, some countries exhibit a moderately high structural media performance on both functions. This especially applies to Central European countries like Austria, Germany and Switzerland. Other groups of countries, however, perform exceptionally well, but only with regard to one of the media functions or its components. Hence, whereas most Anglo-Saxon and Scandinavian countries as well as Japan fulfill the vertical media function to very high degrees, at least some of them perform rather poorly in terms of quantitative diversity and/or qualitative diversity, the two components of the horizontal media function. Small European countries like Cyprus, Malta and Luxembourg, by contrast, have a very strong quantitative media diversity but score rather low on the vertical media function. Similarly, while France, India and Israel rank high in terms of qualitative media diversity, the media systems in at least the latter two countries are not very well suited to fulfill the requirements of the vertical media function. These results suggest that a simultaneous maximization

of both media functions is difficult to achieve. In consequence, whether a moderate fulfillment of both functions or a high fulfillment of only one function is the better outcome for the quality of democracy is a matter of opinion. However, considering that both media functions were found to have important effects for different aspects of democracy in chapter 8, as will be discussed below, the first strategy might be more desirable. Finally, there are also groups of media systems with a comparatively poor performance of both media functions. They are mostly found in in the younger democracies and less developed countries of Southern and Eastern Europe as well as Latin America and Asia.

Finally, chapter 5 also looked for determinants of structural media performance by means of multivariate regression analyses. Different types of predictor variables were considered. In short, the vertical media function is strongly related to press freedom and especially a country's wealth, measured by its GDP per capita. The horizontal media function proved more difficult to explain, and the model fits were thus rather poor. On the one hand, press freedom and GDP per capita also turned out to affect quantitative media diversity, the first component of the horizontal function. However, this only applies to the larger 47-country sample. In the smaller 24-country sample quantitative media diversity is rather determined by the size of the population and the political-institutional context in terms of Lijphart's (1999) dimensions of democracy. While press diversity has a positive relationship with the executive-parties dimension, television diversity is rather influenced by the federal-unitary dimension. On the other hand, practically no explanations were found for qualitative media diversity. The only significant result was that qualitative diversity seems to be higher in more consensual democracies as measured by Lijphart's (1999) executive-parties dimension. Overall, although not all of the anticipated effects could be observed, the findings correspond to the theoretical expectations.

To measure media performance on the content level, a content analysis of a total of 50 newspapers from the following ten countries was conducted: Australia, Austria, Canada, France,

Germany, Ireland, New Zealand, Switzerland, the United Kingdom and the United States. For each of these countries, five of the ten largest circulating daily newspapers were selected, and their full content from 26 representative days of the year 2008 was sampled (see chapter 4).[114] This news material was then scanned for various keywords by a semi-automated procedure. In other words, the media performance measures on the content level are entirely based on the appearance of various keywords within newspaper articles. Nine indicators were constructed to assess the compliance of a country's press with the standards of the vertical and the horizontal function with respect to its news coverage. The five indicators for the vertical media function reflect a) the share of a newspaper's daily volume that deals with political affairs, b) the share of articles about governments and parliaments, respectively, that associate them with malpractice, and c) the degree to which newspapers cover the three constitutional branches and the public administration as well as only the government and the parliament to equal extents. The four indicators for the horizontal media function, on the contrary, measure a) whether newspapers establish a diverse platform by covering all political parties to equal degrees as well as according to their electoral strengths, and b) whether newspapers contrast different viewpoints, which was assessed by the share of articles about political parties citing more than one party on the one hand, and the mean number of parties mentioned per article on the other.

In Chapter 6, the resulting data was used to analyze content-level media performance, proceeding in almost the same steps as for structural media performance in chapter 5. Thus, a factor analysis on the basis of the 50 newspapers first tested whether the nine indicators relate to each other like the two-dimensional theoretical model expects. And indeed, like for the structural level, the results for the content level are mostly in line with the conceptualization of the vertical and the horizontal media function. Again, the indicators for the two media functions do not load onto the same latent factors but rather form separate dimensions. But

[114] Except for Germany and Ireland, where six and four newspapers were analyzed, respectively.

while the horizontal media function splits into two factors according to its two components quantitative and qualitative diversity on the structural level, it is the vertical function that subdivides into its respective two components on the content level – the amount and the balance of information (see chapter 3). So overall, these findings provide strong support for the validity of the theoretical conceptualization of the two media functions on the content level.

Furthermore, since the main ambition of the present study is to compare media performance across countries, it was important to determine whether the factor scores for the horizontal and the vertical media function, which were calculated on the basis of individual newspapers, vary more between different types of newspapers or more between the ten countries. To this end, I compared the variance and mean level of media performance in every country. The results indicated that countries are quite homogenous in terms of the democratic performance of their press. Regression analyses in which both newspaper-specific and country-specific variables were used as determinants of the factor scores provided even stronger support for this conclusion. Although the characteristics of individual outlets, particularly whether they are a regional, a broadsheet or a tabloid newspaper as well as their circulation, play a decisive role for the quality of their news output with respect to the normative standards of the vertical and horizontal media function, the larger country context generally seems to matter more. Hence, media content performance varies more strongly across than within countries, i.e., across newspaper types. This result is very substantial and speaks to the literature pointing to the importance of news cultures (Esser 2008).

In addition, the specific effects of the macro-level explanatory factors are noteworthy and highly plausible as well. I tested the impact of the values for structural media performance as measured in chapter 5, as well as a country's media and political traditions by the three models of media systems by Hallin and Mancini (2004) and the two dimensions of democracy by Lijphart (1999). Moreover, I controlled for whether a country is in an election year or not and, in the case of the first component of the vertical media function, for its level of corruption.

Staying with this latent dimension, the regression analysis revealed that the amount of especially critical political information that media provide is significantly higher in liberal media systems (Hallin and Mancini 2004) and in majoritarian as well as more federal democracies. Moreover, media do a better job of informing voters in elections years, and there is also a positive relationship between the level of corruption in a country and media performance in terms of the first vertical function component. Considering that the indicators supposed to measure the degree of media coverage about official malpractice belong to this component, this is quite an interesting result, which can actually be taken as evidence for the validity of these indicators. Finally, but most strikingly, vertical function performance on the structural level has a positive effect on vertical function performance on the content level. This suggests that the structural and the content level of media performance are linked and should not be treated as distinct phenomena. The positive connection between the two levels of analysis is also evident with respect to the horizontal media function. Accordingly, the balance of parties in the news is better and a dialogic structure of newspaper articles more common in countries where press systems exhibit greater quantitative and qualitative diversity. Additionally, on the content level, the horizontal media function is also much better fulfilled in Hallin and Mancini's (2004) democratic corporatist media systems than in liberal media systems, in countries with a stronger division of powers and federalism as well as in elections years. Finally, the second component of the vertical media function, reflecting the degree to which newspapers balance their coverage of different constitutional branches is the only one of the content-level media performance factors which is more strongly affected by newspaper characteristics than country-specific features. In fact, it is mainly determined by a newspaper's circulation. This probably means that only large news organizations can afford to invest many resources in less newsworthy institutions like the judiciary and the public administration. As for the macro-level explanatory variables, only the polarized pluralist and the election year dummy have a

significant and negative effect. Quite plausibly, media pay more attention to the legislative and executive powers than the institutions just mentioned during election campaigns.

Following the approach from chapter 5 for the structural level, chapter 6 explored whether cross-national patterns of media performance can be identified on the content level as well. For this purpose, bivariate scatter plots were combined with, again, cluster analysis. And similarly to chapter 5, significant differences between the countries can be observed in terms of how well their press complies with the requirements of the vertical and horizontal function in their news coverage. Hence, different configurations of the two media functions and thus multiple types of media performance were also found with respect to the content level. More specifically, the cluster analysis classified the 50 newspapers into four different groups. These are largely homogenous, in the sense that newspapers from the same country mostly cluster within the same group. And although the overall media performance of each type might be interpreted as decreasing in the order in which they are described below, what seems more important for the perspective of this study is that no country was found to perform especially well on both media functions. Thus, just like in the structural analysis, a country's press or news culture seems to prioritize particular aspects of media performance over others.

The first cluster consists of the five American cases as well as the broadsheet newspapers from France and Great Britain in the sample. Overall, these are characterized by only a mediocre fulfillment of the horizontal media function but an exceptionally high fulfillment of both components of the vertical media function. This was interpreted to be a result of the tradition of investigative journalism and the strong checks and balances with respect to the United States, and the high-quality professional status of the French and British cases. The second cluster combines newspapers which perform very well on the horizontal media function but below average on the vertical media function (particularly the second component). This applies to all cases from Austria and Canada as well as the two quality newspapers from Germany and might be related to the power-sharing cultures within these countries. The German,

French and British regional and tabloid cases, by contrast, form the third cluster, together with all five newspapers from Switzerland and the "Irish Times". These seem to share a moderately high performance of the second component of the vertical media function, i.e., the balance of information about different political institutions, and shortcomings regarding the horizontal and especially the first component of the vertical function. This suggests that the respective 16 newspapers adopt a rather compliant or deferential attitude towards political office-holders, which has been observed for the Swiss media before (Blum 2005b; Kriesi et al. 2012: 226). Nevertheless, the classification is somewhat misleading for the Swiss cases. All of them except the tabloid "Blick" score above average on the horizontal function too, even though this is not visible in the cluster analysis. Lastly, the remaining newspapers from Ireland, along with the five each from Australia and New Zealand, belong to the fourth cluster. They feature a moderate level of fulfillment of the first vertical function component but quite serious deficiencies in terms of the second component as well as the horizontal media function. This is interesting with respect to Hallin and Mancini (2004). On the one hand, their typology has some similarities with the country classification presented in chapter 6 and was useful to interpret the respective findings. On the other hand, Australia and New Zealand, which should probably be regarded as liberal media systems, exhibit a rather distinct news culture in my analyses. Hence, the authors claiming that Hallin and Mancini (2004) only considered those countries which would fit their typology might have a point (see Blum 2005a).

To summarize the most important findings from the first part of the present book, the following conclusions can be highlighted. First of all, the conceptual model developed in this study, which is based on the vertical and the horizontal function as well as the structural and the content level of analysis, proved to be a useful framework to examine democratic media performance, i.e., the compliance of media and media systems with their role in modern democracies. Although the model was derived on purely theoretical grounds, following a thorough

review and synthesis of the normative literature, its empirical validity was tested and largely confirmed. As the factor analyses for both the structural- and content-level data have shown, the correlation structure of the indicators selected to operationalize the vertical and the horizontal media function reflects these theoretical dimensions sufficiently well. To the best of my knowledge, none of the previous studies which defined and evaluated democratic media performance have made similar efforts to validate the adequacy of their conceptualizations.

Moreover, few of them have combined media performance evaluations on both the structural and the content level. The present study has therefore made an attempt to fill this void and found that it is indeed very relevant to do so. A particularly striking result of chapter 6 is that media performance on the structural level is significantly and positively related to media performance on the content level. Hence, comparative media research should not only focus on one of the two levels of analysis but rather explore their links and interactions in more detail. On that note, it was generally remarkable to see that media performance on the content level is more a function of a country's specific news culture than of the editorial policies of individual newspapers.

Third, the assessment and comparison of democratic media performance on both the structural and the content level, as measured in this book, revealed a considerable variation across the ten to 47 countries studied, and different patterns of media performance could be identified. Although some countries can be ascribed a higher overall degree of media performance than others, none really score very high on both the vertical and the horizontal function. Thus, it seems that a simultaneous maximization of both media functions is difficult to achieve. Countries therefore either perform badly or moderately on both functions or outstandingly on just one of the functions. For example, the United States, an interesting case because much of what has been said and written about media performance comes out of this context, were found to have a lot of room for progress in terms of the horizontal media function, but to excel in terms of the vertical media function on both levels of analysis. With regard to the dis-

pute between media malaise and mobilization theory, all of these results indicate that the story about the state of media and democracy is more complicated than both sides in the debate might have us think. Neither should we claim that mass media generally – and in the United States in particular – fail on all accounts to fulfill their democratic duties as proponents of the media malaise perspective tend to do, nor should serious shortcomings in terms of media performance be ignored or brushed off too easily as supporters of the mobilization perspective might do. The aim of this book is therefore not to take sides and make assumptions about who is right in this debate. Instead, it suggests that both sides could benefit from and may find common ground by considering more systematic and comparative empirical evidence.

In addition, summary judgments about which theory is wrong would not be appropriate even if that was the intention. This is because the media performance evaluations presented in this book are based on relative or comparative assessments. Thus, it is important to keep in mind that negative factor scores do not necessarily stand for a bad media performance according to any absolute standards, but only a bad or below average performance relative to all other countries studied. Similarly, the highest factor scores indicate the best performance compared to all other countries in the sample, but not the best possible performance by a specific benchmark. Nevertheless, the theoretical and empirical conceptualization developed in this study might hopefully serve as a point of reference for future studies in the field.

9.2 The effects of differences in media performance

After having measured and compared democratic media performance in the first part of the book, the second part moved one step further. Its goal was to establish what kind of consequences for the well-functioning of democratic regimes different degrees of media performance actually have or, in other words, how media performance affects the quality of democracy. This question is just as highly debated by media malaise and mobilization theorists as the media's compliance with democratic standards as such, and just as rarely substantiated by

comprehensive comparative evidence. As described in chapter 2, existing studies which relate media performance features to democratic outcomes in a broad cross-national perspective usually either focus on just one specific aspect of democracy or a highly aggregated measure of democracy. Thereby, they disregard that different dimensions of media performance might have different effects on different aspects of democracy. Hence, the relationship between media and democracy should be analyzed in its full complexity, by exploring the various links between the two phenomena more systematically. The present study made an attempt to do so by testing the impact of the vertical and the horizontal media function on at least four of the nine integral elements of democratic quality (Bühlmann 2011a, 2012): political participation, transparency, civil society organization and political representation. While the vertical media function was primarily expected to increase the former two, the horizontal media function was assumed to promote the latter two. These hypotheses followed more or less directly from the rationales for the vertical and horizontal function derived from normative theories (see chapters 3 and 7). For pragmatic reasons, they were tested on the basis of the factors scores for structural media performance of the large 47-country sample only, by means of both cross-sectional as well panel data regression analysis. I will briefly outline the main results.

First, political participation actually consisted of two constitutive parts. The first was the level or extent of political participation in conventional (elections and direct-democratic votes) as well as unconventional forms (demonstrations and petitions). As expected, vertical media function performance has a positive effect on the level of participation. In addition, quantitative media diversity, the first component of the horizontal function also showed a weak but positive influence on how many people engage in politics. As for the second part of political participation, however, virtually no effects of structural media performance were found. The second part reflected the equality of participation or, in other words, the extent to which different education, income, gender and age groups participate to equal degrees.

Second, in line with the hypothesis, the vertical media function is also positively and quite strongly related to transparency, which is conceptualized as the absence of corruption in the public sector. And again, the analyses showed that quantitative diversity within the press system also contributes to more transparency. Moreover, dynamic panel regression models revealed that media performance helps to fight corruption more effectively in the longer run, i.e., with some time delay.

Third, the results are mixed with regard to the impact of horizontal media function performance on civil society organization, i.e., the shares of citizens who are members in trade unions and environmental associations. On the one hand, quantitative diversity, the first component of the horizontal media function, exhibited the anticipated positive effect on interest group organization. On the other hand, qualitative media diversity, the second component, seems to affect the civil society negatively, although the respective estimates were only significant in the panel analysis and smaller than those for quantitative diversity. No clear explanation was found for this unexpected finding. In addition, a positive influence of the vertical media function on civil society organization could be observed as well. But the direction of causality in this case seems to be more uncertain than for the other relationships tested, since the effect is only contemporaneous.

Finally, the findings for political representation, which was measured by issue-congruence between voters and parliaments and by the political inclusion of minorities, again correspond to the theoretical assumptions. Thus, a higher fulfillment of the horizontal media function leads to a more adequate political representation. Both components, quantitative and qualitative media diversity, have positive effects on representation, although only marginally so and only with some time delay in the case of the latter. Moreover, since a positive association with the dependent variable could also be observed for the vertical media function, media performance generally seems to be important for political representation.

In sum, most of the hypotheses about the interaction between media performance and four constitutive elements of democracy could be confirmed. Hence, the expectations inherent in the normative literature about the media's role for democracy seem to hold. On top of the expected relationships, additional media performance effects were found for all of the four dependent variables. And even though not all of them had a positive direction, there is no doubt that media performance is a major determinant for the well-functioning of different dimensions of a democratic regime. Thus, given its relevance for democracy, it can be concluded that the discussion about whether media fall short of or fulfill the normative demands imposed on them is not obsolete, but actually very important. However and again, whether the media malaise or the mobilization thesis is more accurate cannot be answered with the analyses presented in the second part of this study, and it is also not my intention to adopt a specific position. But in the most general terms, the findings at least suggest that democracy does not seem to be in crisis because of their mass media and media systems.

9.3 Limitations and outlook

This book presented a study that is to a large extent exploratory and operates in a research field that is still quite patchy and underdeveloped. For this reason, various limitations could not be avoided, and they should not be ignored either.

As emphasized throughout the previous chapters, finding and collecting adequate data to measure media performance posed the biggest challenge for the present study. With regard to the structural level, many comparative media scholars agree that reliable and comparable media system statistics which cover a large number of countries worldwide as well as possibly a larger time period are rare. The indicators available often have a limited scope or are not very well standardized across countries, which makes them difficult to use in cross-national analyses. In addition, many of the more useful data sources are commercial and therefore not available free of charge. All of this applies to data about the electronic media sector in par-

ticular, which is why the broadcast sector is not well represented in the present study, at least among the indicators for the horizontal media function. Instead, the horizontal media function mostly relies on press system data, and exclusively so for analyses with the large sample consisting of 47 countries.

As for the content level, large-scale content analyses including a broad number of countries are still very difficult to conduct. On the one hand, the limited availability of news material in electronic form is again problematic. Although a few databases provide access to a large number of newspapers from many different countries, coverage varies greatly across countries, and transcripts of news broadcasts are rather the exception than the norm. On the other hand, content analyses are very time-consuming, and language barriers pose further challenges. Automated coding and analysis techniques are still in their infancy, even though they have a lot of potential and developments are under way. Due to these restrictions, the content analysis conducted for this study was also confined to newspapers and only ten countries. And because of this limited number of cases, the content-level data could unfortunately not be used to conduct multivariate regression analyses as envisaged in the second part of this book.

Partly as a result of the limited data availability but also in order to allow for broad cross-national comparisons, rather weak normative standards and rough variables were chosen for the conceptualization of media performance in terms of the vertical and horizontal function. Hence, it is of course arguable whether the specification and operationalization of the theoretical model are reasonable and sufficient from a classical normative perspective.

Future studies should thus focus on finding and employing more suitable indicators for the structural level, especially the horizontal function. In particular, the measures for the second component of the horizontal media function, which assesses qualitative media diversity, seem to be of little significance. Even though the indicators for internal and external diversity of opinions are based on established theoretical concepts and a lot of effort was put into compil-

ing them, the corresponding factor scores could neither be explained in chapter 5 nor did they explain much in chapter 8.

Of course, continued efforts should also be devoted to collecting content-level data for more countries, different types of media as well as a larger time span. Having data for more cases would then allow to jointly analyze media performance on the structural and the content level, and to explore their interesting links in more detail than was possible in this book. Due to the very different sample sizes, combined measures of structural- and content-level media performance could not be calculated. As for the time frame, ideally, at least four years should be analyzed, in order to make sure that a full legislative period is covered in every country. News coverage varies between different phases of the democratic process. Simply accounting for this by a dummy variable that reflects where elections were held in 2008 is not sufficient. Differences in content-level media performance during and in-between elections should be studied within each country.

Further limitations can be identified with respect to the methods and specific analyses conducted. The question of how media performance evolved and changed over time was somewhat neglected in chapter 5, even though structural-level data was collected for 19 years. Moreover, it might have been more appropriate to apply confirmatory rather than exploratory factor analysis to determine the empirical validity of the theoretical model of media performance in chapters 5 and 6. Finally, the regression models presented in the second part of the book (see chapter 8) also provided only an approximate overview of the effects of media performance on different aspects of democracy. More in-depth analyses would allow for more robust tests of the respective theoretical expectations. These might include interaction effects, more sophisticated methods to account for endogeneity as well as multilevel analysis to connect the content-level data to individual political behavior and perceptions. Moreover, possible relationships between media performance and further dimensions of democracy – such as individual liberties or the rule of law – should be examined.

To conclude, I would like to stress once again that it is important and necessary to think about the role of mass media in democracies, about how media actually perform with respect to their democratic functions and what implications this really has for the workings of the democratic process. This book aimed to contribute to respective discussions by attempting to provide more empirical insights. Hopefully, it will itself be debated and thereby inspire future studies to continue in the same direction, but improve the conceptualization, measurement and analyses of democratic media performance in terms of the vertical and the horizontal function as well as in terms of media structures and media content.

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Appendix

Table A4.1 *Characteristics of media function indicators for the structural level*

	Indicator	Sample [a]	N [b]	Missings [c]	Source(s) [d]
Vertical	Daily press circul. per 1'000 people	1	47	6.74	WAN; World Bank
	Radio sets per capita	1	47	4.30	BCNTS; ITU; World Bank
	TV sets per capita	1	47	2.36	BCNTS; ITU
	Computers in % population	1	47	3.91	ITU
	Internet users in % population	1	47	1.00	World Bank; ITU
Horizontal	Daily press titles per 1 million people	1	47	5.06	WAN; World Bank
	Newspaper import in % GDP	1	47	2.19	UN COMTRADE; World Bank
	TV stations received	2	38	10.63	EAO; Eurostat (2003); IP; UNESCO
	% TV households (TV HH) receiving foreign TV news channels	2	27	18.00	IP
	Ideological balance of the press system	1	47	6.77	Banks et al.; various others (see p. 86)
	Neutral newspapers' circulation share	1	47	6.77	Banks et al.; various others (see p. 86)
	Strength of the public broadcast sector (index)	2	26	2.25	EAO; Hanretty (2009); IP; Leckner and Facht (2010); Nordicom; Popescu et al. (2010)

Notes: a) Sample 1 = large sample (47 countries), sample 2 = small sample (24 countries); b) number of sample 1 countries for which for which indicator is available; c) average number of years between 1990 and 2008 which were missing per country and had to be replaced in the sample listed in the previous column 'Sample'; d) to find out what the abbreviations mean see the references and footnotes in chapter 4.

Table A4.2 *Descriptive statistics of media function indicators for the structural level*

	Indicator	Min.	Max.	Mean	St.dev.	Variance	N
Vertical	Daily press circulation per 1'000 people	11.49	751.47	191.61	150.41	22'621.88	893
	Radio sets per capita	0.02	2.23	0.72	0.44	0.19	893
	TV sets per capita	0.03	1.35	0.44	0.21	0.05	893
	Computers in % population	0.00	94.58	21.68	22.00	483.81	893
	Internet users in % population	0.00	90.77	20.86	25.47	648.79	893
Horizontal	Daily press titles per 1 million people	0.36	25.74	4.60	4.58	21.01	893
	Newspaper import in % GDP	0.00	0.27	0.04	0.05	0.00	893
	TV stations received	1	144	11.85	17.37	301.76	722
	% TV HH receiving foreign TV news channels	10.08	70.01	43.26	15.83	250.57	513
	Ideological balance of the press system	-2.50	0.00	-0.43	0.32	0.10	893
	Neutral newspapers' circulation share	0.00	85.79	27.86	20.14	405.45	893
	Strength of the public broadcast sector (index)	0.01	75.00	16.67	14.35	205.93	494

Notes: Descriptive statistics on the basis of panel data, only including countries belonging to sample 1.

Table A4.3 *Overview of the newspaper sample of the content analysis*

Country	Newspapers (rank [a])	Circulation	N articles	Style [b]	Ideology
Australia	• Herald Sun (1)	• 535'000	• 5'765	• Tabloid	• Center-right
	• Daily Telegraph (2)	• 392'000	• 5'193	• Tabloid	• Conservative
	• Courier-Mail (3)	• 221'000	• 4'018	• Rather tabloid	• Conservative
	• Sydney Morning Herald (4)	• 207'000	• 3'426	• Broadsheet	• (Conservative) [c]
	• The Age (5)	• 206'000	• 3'598	• Broadsheet	• Center-left
Austria	• Kronen Zeitung (1)	• 881'000	• 19'101	• Tabloid	• Center-right
	• Kleine Zeitung (3)	• 292'000	• 15'465	• Regional	• Center-right
	• Kurier (4)	• 192'000	• 10'547	• Broadsheet	• Independent
	• Oberösterreichische Nachrichten (5)	• 130'000	• 6'699	• Broadsheet/ Regional	• Independent
	• Tiroler Tageszeitung (6)	• 104'000	• 5'845	• Regional	• Independent
Canada	• Toronto Star (1)	• 431'000	• 3'931	• Broadsheet	• Center-left
	• Globe and Mail (2)	• 329'000	• 5'542	• Broadsheet	• Center
	• National Post (4)	• 201'000	• 4'626	• Broadsheet	• Conservative
	• Toronto Sun (6)	• 195'000	• 2'813	• Tabloid	• Conservative
	• Vancouver Sun (7)	• 162'000	• 3'439	• Broadsheet	• Center-right
France	• Ouest-France (1)	• 789'000	• 13'936	• Regional	• Center-right
	• Le Monde (2)	• 364'000	• 3'399	• Broadsheet	• Center-left
	• Le Figaro (3)	• 349'000	• 2'428	• Broadsheet	• Conservative
	• Le Parisien (4)	• 344'000	• 9'574	• Tabloid	• Independent
	• Sud-Ouest (5)	• 321'000	• 25'594	• Regional	• Independent
Germany	• Kölner Stadt-Anzeiger / Kölnische Rundschau (3)	• 558'000	• 10'901 / 12'874	• Regional	• Center-left / center-right
	• Süddeutsche Zeitung (4)	• 431'000	• 8'702	• Broadsheet	• Center-left
	• Rheinische Post (5)	• 383'000	• 76'658	• Regional	• Conservative
	• F.A.Z. - Frankfurter Allgemeine Zeitung (6)	• 360'000	• 6'472	• Broadsheet	• Conservative
	• Thüringer Allgemeine (7)	• 342'000	• 18'998	• Regional	• Independent
Ireland	• Irish Independent (1)	• 160'000	• 3'500	• Broadsheet	• Center-right
	• Irish Times (2)	• 119'000	• 4'694	• Broadsheet	• Independent
	• Evening Herald (5)	• 82'000	• 2'480	• Tabloid	• Center-right
	• Irish Examiner (7)	• 55'000	• 4'955	• Broadsheet	• Center-right
New Zealand	• New Zealand Herald (1)	• 194'000	• 3'137	• Broadsheet	• Center-right
	• Dominion Post (2)	• 98'000	• 1'683	• Broadsheet/ Local	• Independent
	• The Press (3)	• 89'000	• 1'575	• Broadsheet	• Conservative
	• Waikato Times (4)	• 42'000	• 1'010	• Regional	• Independent
	• Otago Daily Times (5)	• 41'000	• 1'285	• Regional	• Conservative
Switzerland	• Blick (1)	• 240'000	• 1'495	• Tabloid	• Center-left
	• Tages-Anzeiger (2)	• 216'000	• 5'969	• Broadsheet	• Center-left
	• Berner Zeitung (3)	• 213'000	• 7'185	• Regional	• Independent
	• Nordwestschweiz (4) [d]	• 207'000	• 13'537	• Broadsheet	• Center-right
	• Neue Zürcher Zeitung (5)	• 144'000	• 5'434	• Broadsheet	• Conservative
United Kingdom	• The Sun (1)	• 2'986'000	• 14'329	• Tabloid	• Conservative
	• Daily Mail (2)	• 2'311'000	• 8'392	• Tabloid	• Conservative
	• Daily Mirror (3)	• 1'494'000	• 9'342	• Tabloid	• Leftist
	• Daily Telegraph (4)	• 874'000	• 4'340	• Broadsheet	• Conservative
	• Daily Express (5)	• 745'000	• 6'862	• Tabloid	• Conservative
United States	• USA Today (1)	• 2'293'000	• 2'073	• Rather tabloid	• Independent
	• Wall Street Journal (2)	• 2'012'000	• 4'043	• Broadsheet	• Conservative
	• New York Times (3)	• 1'038'000	• 5'578	• Broadsheet	• Leftist
	• Daily News (NY) (5)	• 681'000	• 2'619	• Rather tabloid	• Independent
	• New York Post (6)	• 667'000	• 2'907	• Tabloid	• Conservative

Notes: a) Rank among the top ten paid daily newspapers in terms of circulation according to World Press Trends 2008; b) The labels used here do not refer to the format of the newspaper but rather the journalistic style usually associated with these formats; c) Traditionally conservative, but endorsed Labor Party in 2007 and 2010 elections; d) Formerly Mittelland-Zeitung, combination of Aargauer Zeitung, Basellandschaftliche Zeitung, Solothurner Zeitung, Oltner Tagblatt and Zofinger Tagblatt.

Table A4.4 *Sample of days for the content analysis*

Date	**Weekday**	**Exceptions / deviations [a]**
01/07/2008	Monday	- Tages-Anzeiger (Switzerland): 01/08/2008 - Le Monde (France) [b)]: 01/06/2008 - Ouest-France (France): 01/08/2008
01/23/2008	Wednesday	
02/08/2008	Friday	
02/19/2008	Tuesday	
03/06/2008	Thursday	
03/17/2008	Monday	- Oberösterreichische Nachrichten (Austria): 03/15/2008 - Le Monde (France) [b]: 03/16/2008
04/02/2008	Wednesday	- Oberösterreichische Nachrichten (Austria): 04/05/2008
04/18/2008	Friday	- Le Monde (France): 04/17/2008
04/29/2008	Tuesday	
05/15/2008	Thursday	
05/26/2008	Monday	- USA Today (United States): 05/27/2008 - Wall Street Journal (United States): 05/27/2008 - Le Monde (France) [b]: 05/25/2008
06/11/2008	Wednesday	
06/27/2008	Friday	
07/08/2008	Tuesday	
07/24/2008	Thursday	
08/04/2008	Monday	- National Post (Canada): 08/05/2008 - Vancouver Sun (Canada): 08/05/2008 - Le Monde (France) [b]: 08/03/2008
08/20/2008	Wednesday	- Sud-Ouest (France): 08/22/2008
09/05/2008	Friday	
09/16/2008	Tuesday	
10/02/2008	Thursday	
10/13/2008	Monday	- National Post (Canada): 10/14/2008 - Le Monde (France) [b]: 10/12/2008
10/29/2008	Wednesday	- Otago Daily Times (New Zealand): 11/03/2008
11/14/2008	Friday	
11/25/2008	Tuesday	
12/11/2008	Thursday	
12/22/2008	Monday	- Le Monde (France) [b]: 12/21/2008

Notes: a) Indicates the newspapers which were not available on the given day as well as the day chosen instead. If the sampled day was not available, the next or closest available day was selected. b) Le Monde (France) appears in the afternoon and always carries the next day's date. Thus, there are no editions with Monday dates.

Table A4.5 *Concepts of interests for the content analysis – number of keywords and examples*

Concept [a]	**Number of keywords** [b]			**English examples** [c]
	English	French	German	
Politics in general	4.00	4.00	4.00	federal; politics; politician
Executive in general	3.17	3.00	3.33	executive; government; cabinet
Head of government	2.50	3.00	2.50	president; prime minister; *NAME*
Head of state	3.60	3.00	2.00	president; prime minister; *NAME*
Ministers	33.17	18.00	16.00	home secretary; minister; secretary of state; *NAMES*
Legislative in general	4.83	3.00	6.33	Congress; lawmaker; legislative; MP (NZ); parliament
Lower house	2.60	2.00	1.33	House of Commons; MP; representative
Upper house	2.00	1.00	2.00	Senate; senator; Lord (UK)
Judiciary	8.33	13.00	6.67	court; judge; judicia*; legal system; prosecutor
Public administration	14.67	15.00	13.00	authorities; bureaucracy; public official; public service
Political parties	23.17	39.00	28.67	*See table A4.6*
Corruption	8.00	10.00	8.00	blackmail; bribe ; corrupt; favoritism; extortion; venal
Lying	38.00	30.00	35.00	adultery; cheat; dishonest; hypocrite; immoral; lie; sin
Fraud	34.00	23.00	26.00	abuse; felony; fraud; embezzle; misconduct; wrongdoing
Scandal	2.00	2.00	2.00	scandal; éclat
Negative coverage	23.00	30.00	37.00	disgrace; dimwitted; embarrassment; infamy; shameful

Notes: a) Full concept or subcategory of a concept, if applicable. Corruption, Lying, Fraud, Scandal and Negative Coverage are subcategories of the concept malpractice, for instance. Concepts are delimited by solid horizontal lines in the table. b) Average of countries with the same language. c) Examples of original keywords before stemming and implementation of heuristic rules.

Table A4.6 *Political parties considered in the content analysis*

	Party	Other identifiers	Presidents / leaders
Australia	Australian Democrats	-	Lyn Allison; Julia Melland
	Australian Labor Party	ALP; Labor	Linda Burney; Mike Rann [a]
	Family First Party	Family First	Steve Fielding
	National Party of Australia	Nationals	John Tanner; Warren Truss
	One Nation	-	-
	Greens	Australian Greens	Bob Brown
	Liberal Party of Australia	Liberals; Lib	Chris McDiven; Brendan Nelson; Alan Stockdale
	Country Liberal Party	CLP; Country Liberals	Jodeen Carney; Terry Mills
Austria	Die Grünen	Grüne; Die Grüne Alternative	Alexander van der Bellen; Eva Glawischnig
	Freiheitliche Partei Österreichs	Freiheitliche; FPÖ	Heinz-Christian Strache
	Liberales Forum	Liberale; LIF	Werner Becher; Heide Schmidt; Alexander Zach
	Österreichische Volkspartei	ÖVP	- [b]
	Sozialdemokratische Partei Österreichs	Sozialdemokraten; SPÖ	- [c]
	Bündnis Zukunft Österreich	BZÖ	Jörg Haider
Canada	Bloc Quebecois	BC; Bloquist; the Bloc	Gilles Duceppe
	Conservative Party of Canada	Conservatives; Tories	Don Plett
	Liberal Party of Canada	Grits; Liberals	Stéphane Dion; Doug Ferguson; Michael Ignatieff; Marie Poulin
	New Democratic Party	NDP; New Democrats	Jack Layton; Anne McGrath
	Green Party of Canada	Greens	Elizabeth May; Kate Storey
France	Les Verts	Confédération Écologiste – Parti Écologiste	Cécile Duflot
	Mouvement Pour la France	MPF	Philippe de Villiers
	Parti Communiste Français	Communistes; PCF	Marie-George Buffet
	Parti Radical de Gauche	PRG	Jean-Michel Baylet
	Parti Socialiste	PS; Socialistes	Martine Aubry; François Hollande
	Rassemblement pour la France	RPF; Rassemblement pour la France et l'Indépendance de l'Europe	Charles Pasqua
	Union Pour un Mouvement Populaire	UMP	- [d]
	Nouveau Centre	N.Centre	- [e]
	Front National	FN	Jean-Marie Le Pen
	Mouvement Démocrate	MoDem	François Bayrou
	Centre National des Indépendants et Paysans	CNI; CNIP	Annick du Roscoät
	Forum des Républicains Sociaux		- [f]
	Mouvement Républicain et Citoyen	MRC	Jean-Pierre Chevènement
	La Gauche Moderne	-	Jean-Marie Bockel
	Parti Radical	Parti Radical Valoisien	-
Germany	Bündnis 90/Die Grünen	B'90/Grüne; Die Grünen; Grüne	Cem Özdemir; Reinhard Bütikofer
	Christlich Demokratische Union Deutschlands	CDU; CSU; Christlich-Soziale Union in Bayern;	Edmund Stoiber [g]
	Freie Demokratische Partei	FDP	Guido Westerwelle
	Sozialdemokratische Partei Deutschlands	SPD	Kurt Beck; Franz Müntefering [h]
	Die Linke	Linkspartei; Linke.PDS; Linkspartei.PDS; PDS	Oskar Lafontaine

Table A4.6 *Political parties considered in the content analysis (continued)*

	Party	Other identifiers	Presidents / leaders
Ireland	Fianna Fáil - The Republican Party	FF; Fianna Fáil; Soldiers of Destiny; Warriors of Destiny	- [i]
	Fine Gael - The United Ireland Party	FG; Fine Gael	Enda Kenny
	Labour Party	Labour	Eamon Gilmore
	Progressive Democrats	An Páirtí Daonlathach; PD	Ciarán Cannon; Helen McCourt [j]
	Sinn Féin	SF	Gerry Adams
	Green Party	Green Alliance; Greens; Comhaontas Glas	- [k]
New Zealand	Māori Party	-	Whatarangi Winiata [l]
	New Zealand National Party	National Party; Nats; NZ National	Judy Kirk [m]
	New Zealand First Party	NZ First	George Groombridge; Dail Jones [n]
	New Zealand Progressive Party	Jim Anderton's Progressive Coalition, Progressive Party, Progressives	- [o]
	United Future New Zealand	United Future	Denise Krum [p]
	ACT New Zealand	ACT	Garry Mallett [q]
	Green Party of Aotearoa New Zealand	Green Party of Aotearoa; Green Party; Greens	Morea Armstrong; Jeanette Fitzsimons; Russel Norman; Roland Sapsford
	New Zealand Labour Party	Labour Party; Labour; New Zealand Labour	Mike Williams [r]
	New Zealand Pacific Party	Pacific Party	Taito Phillip Field
	The Kiwi Party	-	Gordon Copeland
Switzerland	Christlichdemokratische Volkspartei	CVP	Christophe Darbellay
	Eidgenössisch-Demokratische Union	EDU	Hans Moser
	Freisinnig-Demokratische Partei	FDP; Freisinn; Freisinnige	Fulvio Pelli
	Grüne Partei der Schweiz	GP; GPS; Grüne Partei; Grüne	Ruth Genner; Ueli Leuenberger
	Grünliberale Partei	GLP; Grünliberale	Marin Bäumle
	Partei der Arbeit	PdA	Nelly Buntschu
	Schweizer Demokraten	-	Ueli Brasser
	Schweizerische Volkspartei	SVP	Toni Brunner; Ueli Maurer
	Sozialdemokratische Partei der Schweiz	SP; Sozialdemokraten	Hans-Jürg Fehr; Christian Levrat
	Christlich-Soziale Partei	CSP	Monika Bloch Süss
	Evangelische Volkspartei	EVP	Ruedi Aeschbacher; Heiner Studer
	Lega dei Ticinesi	Lega; LdT	Attilio Bignasca; Giuliano Bignasca
	solidaritéS	SoAL	-
	Liberale Partei der Schweiz	Liberale; LPS	Claude Ruey; Pierre Weiss
	Bürgerlich-Demokratische Partei	BDP	Hans Grunder
United Kingdom	Conservative Party	Conservatives; Tories	David Cameron; Caroline Spelman
	Democratic Unionist Party	DUP	Ian Paisley; Peter Robinson
	Liberal Democrats	Lib Dem	Menzies Campbell; Nick Clegg; Simon Hughes; Ros Scott
	Party of Wales	Plaid Cymru; Plaids	Dafydd Iwan; Ieuan Wyn Jones
	Scottish National Party	Scottish Nationalists	Ian Hudghton; Alex Salmond
	Social Democratic and Labour Party	SDLP; Social democrats	Mark Durkan

Table A4.6 *Political parties considered in the content analysis (continued)*

	Party	Other identifiers	Presidents / leaders
United Kingdom	Ulster Unionist Party	Unionist Party; UUP	Reg Empey; John White
	United Kingdom Independence Party	UKIP	Nigel Farage; Paul Nuttall; John Whittaker
	Labour Party	Labour	Dianne Hayter; Cath Speight
	Respect Party – The Unity Coalition	Respect Party; Respect	Kay Philips; Linda Smith; Salma Yaqoob
	Sinn Féin	-	Gerry Adams
	Independent Kidderminster Hospital and Health Concern	Health Concern; Ind KHHC	Richard Taylor
	Co-operative Party	Co-operatives; Co-ops	Gareth Thomas
USA	Democratic Party	Democrats	Howard Dean
	Libertarian Party	Liberals	Bill Redpath
	Republican Party	Republicans; GOP; G.O.P.; Grand Old Party	Mike Duncan

Notes: a) Kevin Rudd and John Faulkner counted as prime minister and minister, respectively; b) Wilhelm Molterer and Josef Pröll counted as ministers; c) Alfred Gusenbauer and Werner Faymann counted as chancellor and minister, respectively; d) Nicolas Sarkozy, Xavier Bertrand and Patrick Devedjian counted as president and ministers, respectively; e) Hervé Morin counted as minister; f) 13 Christine Boutin; g) Angela Merkel counted as chancellor; h) Frank-Walter Steinmeier counted as minister; i) Bertie Ahern and Brian Cowen counted as Taoisigh (Irish prime ministers); j) Mary Harney counted as minister; k) John Gormley counted as minister; l) Pita Sharples and Tariana Turia counted as ministers; m) John Key counted as prime minister; n) Winston Peters counted as minister; o) Jim Anderton counted as minister; p) Peter Dunne counted as minister; q) Rodney Hide counted as minister; r) Helen Clark and Phil Goff counted as prime minister and minister, respectively.

Table A4.7 *Descriptive statistics of media function indicators for the content level*

	Indicator	Min.	Max.	Mean	St.dev.	Variance	N
Vertical	Share of articles covering politics	7.86	75.93	35.78	14.39	207.05	50
	Watchdog 1	0.00	37.73	20.01	7.31	53.47	50
	Watchdog 2	0.00	42.23	23.52	9.45	89.39	50
	Balance of constitutional branches 1	0.77	0.98	0.90	0.05	0.00	50
	Balance of constitutional branches 2	0.50	0.97	0.77	0.14	0.02	50
Horiz.	Equal coverage of political parties	0.54	0.91	0.78	0.08	0.01	50
	Proportional coverage of political parties	50.71	70.01	61.25	4.65	21.62	50
	Share of articles covering at least two parties	11.05	55.49	33.65	10.25	105.16	50
	Number of parties mentioned per article	0.09	0.52	0.23	0.12	0.01	50

Table A5.1 *Characteristics and composition of the large country sample clusters (5-year panel factors)*

	Cluster				
	1	**2**	**3**	**4**	**5**
Vertical function	**1.292**	**1.140**	-0.374	-0.601	-0.555
Horizontal function – quantitative diversity	**1.173**	-0.470	**2.629**	-0.474	-0.140
Horizontal function – qualitative diversity	**1.100**	-0.237	-0.058	**1.167**	-0.574
Number of country-periods	*12*	*48*	*14*	*37*	*77*
Cluster compositions:					
Finland, Norway	1990-2008				
Australia, Japan, Netherlands, UK, USA		1990-2008			
Denmark		1995-2008			1990-1994
South Korea		2000-2008		1995-1999	1990-1994
Cyprus, Malta			1990-2008		
Bulgaria			1995-2008		1990-1994
Switzerland	2000-2008		1990-1999		
Luxembourg	2005-2008		1990-2004		
India, Israel, Mexico				1990-2008	
Hungary, Paraguay, Slovenia				1995-2008	1990-1994
France, Germany		2000-2008		1990-1999	
Turkey				1990-1999	2000-2008
Slovakia		2005-2008		1995-2004	1990-1994
Brazil, Colombia, Chile, Costa Rica, Honduras, Panama, Peru					1990-2008
Portugal				2005-2008	1990-2004
New Zealand, Poland, Belgium, Croatia, Greece, Spain, Uruguay		2005-2008			1990-2004
Czech Republic				2000-2004	1990-1999, 2005-2008
Mongolia				2000-2008	1990-1999
Austria, Canada, Ireland, Italy, Sweden		2000-2008			1990-1999
Iceland	2005-2008	2000-2004	1990-1994		1995-1999

Notes: cluster analysis of the factor scores based on the analysis of the indicator values from the large country sample, averaged across five years (see left section of table 5.1); figures: average factor scores per cluster; bold figures: score > 0; grey cells: highest score per item; countries are sorted according to longest adherence to clusters 1 to 5.

Table A5.2 *Characteristics and composition of the small country sample clusters (5-year panel factors)*

	Cluster			
	1	**2**	**3**	**4**
Vertical function	**0.616**	**1.250**	-0.866	-0.510
Horizontal function – quantitative diversity press	-0.133	**0.529**	**0.537**	-0.515
Horizontal function – quantitative diversity TV	**1.446**	-0.844	**0.511**	-0.449
Horizontal function – qualitative diversity	**0.169**	-0.357	-1.045	**0.672**
Number of country-periods	*17*	*21*	*20*	*38*
Cluster compositions:				
Germany	1990-2008			
Netherlands, Switzerland	1995-2008		1990-1994	
Denmark, Finland, Norway, Sweden, UK		1990-2008		
Cyprus			1990-2008	
Croatia			1990-2004	2005-2008
Austria, Belgium, Ireland	2000-2008		1990-1999	
Czech Republic		2005-2008	1990-1994	1995-2004
Slovenia	2005-2008		1990-1994	1995-2004
Bulgaria, France, Greece, Hungary, Italy, Spain				1990-2008
Poland, Portugal, Slovakia			1990-1994	1995-2008

Notes: cluster analysis of the factor scores based on the analysis of the indicator values from the small country sample, averaged across five years (see left section of table 5.2); figures: average factor scores per cluster; bold figures: score > 0; grey cells: highest score per item; countries are sorted according to longest adherence to clusters 1 to 4.

Table A5.3 *Explaining vertical media function performance (small country sample)*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.065	(0.018) **	-0.001	(0.022)	0.234	(0.060) **	-	-
Press regulation	-	-	-	-	0.525	(0.216) *	-	-
Population	-	-	0.002	(0.006)	-	-	-	-
GDP p.c.	-	-	0.065	(0.017) **	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.431	(0.280)
Federal-unitary	-	-	-	-	-	-	-0.214	(0.269)
Constant	-5.198	(1.478) **	-1.393	(1.541)	-20.384	(5.426) **	0.179	(0.283)
Model Properties								
R^2	0.363		0.635		0.547		0.164	
Adjusted R^2	0.334		0.581		0.478		0.035	
N	24		24		16		16	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the small country sample.

Table A5.4 *Explaining horizontal media function performance: quantitative press diversity (small country sample)*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.027	(0.022)	0.038	(0.029)	0.147	(0.049) **	-	-
Press regulation	-	-	-	-	0.018	(0.174)	-	-
Population	-	-	-0.025	(0.008) **	-	-	-	-
GDP p.c.	-	-	-0.008	(0.022)	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.559	(0.217) *
Federal-unitary	-	-	-	-	-	-	-0.048	(0.208)
Constant	-2.134	(1.794)	-1.349	(1.719)	-12.675	(4.378) *	-0.497	(0.219) *
Model Properties								
R^2	0.061		0.399		0.615		0.346	
Adjusted R^2	0.018		0.309		0.556		0.245	
N	24		24		16		16	

Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the small country sample.

Table A5.5 *Explaining horizontal media function performance: quantitative TV diversity (small country sample)*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.039	(0.021) $^{+}$	0.009	(0.033)	0.018	(0.088)	-	-
Press regulation	-	-	-	-	0.067	(0.314)	-	-
Population	-	-	0.005	(0.009)	-	-	-	-
GDP p.c.	-	-	0.029	(0.025)	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.064	(0.203)
Federal-unitary	-	-	-	-	-	-	0.722	(0.195) **
Constant	-3.125	(1.726) $^{+}$	-1.445	(2.278)	-1.337	(7.898)	-0.407	(0.239)
Model Properties								
R^2	0.131		0.203		0.004		0.542	
Adjusted R^2	0.092		0.084		-.149		0.472	
N	24		24		16		16	

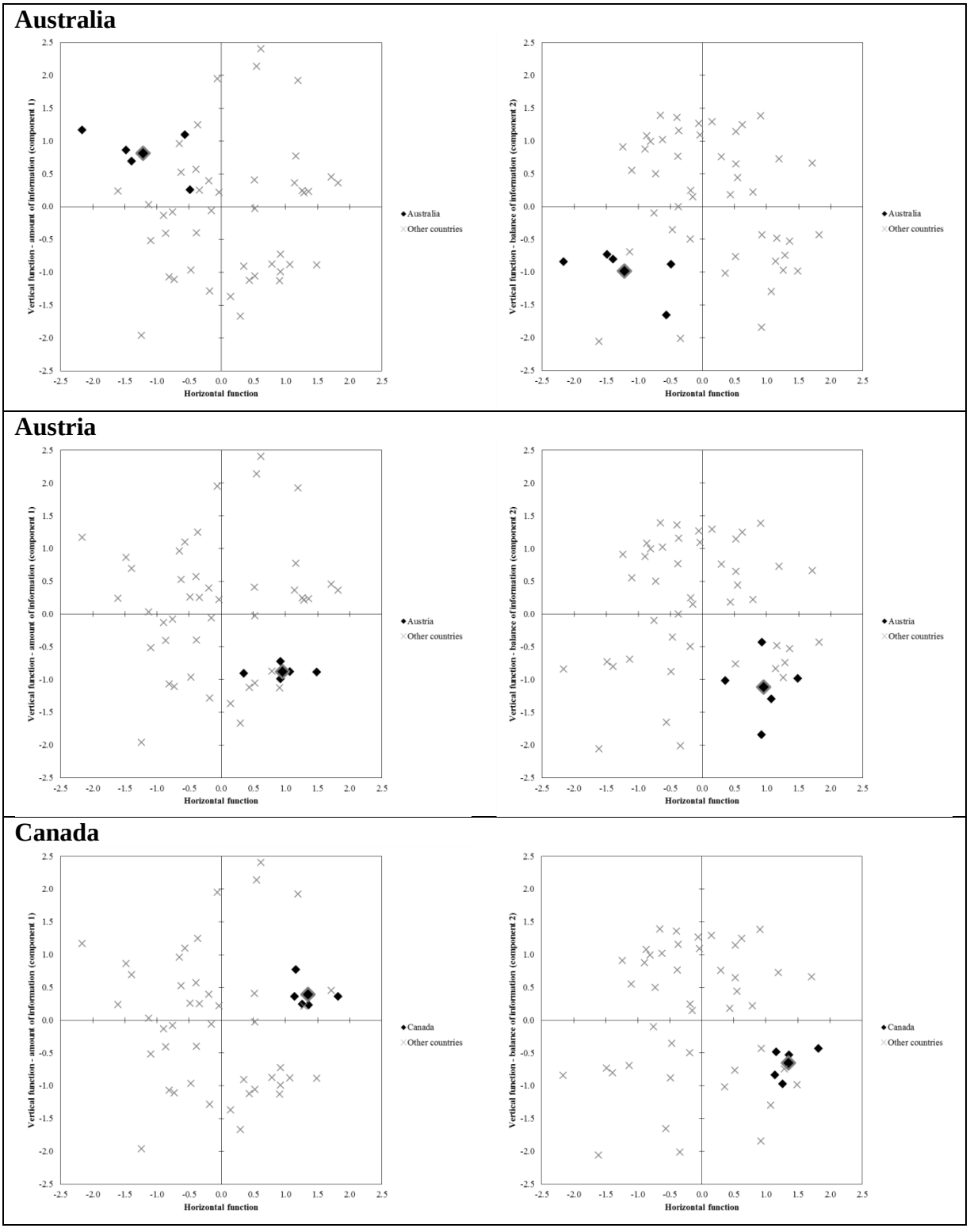
Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the small country sample.

Table A5.6 *Explaining horizontal media function performance: qualitative diversity (small country sample)*

	Model I		***Model II***		***Model III***		***Model IV***	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Media freedom	0.022	(0.022)	0.029	(0.036)	-0.027	(0.089)	-	-
Press regulation	-	-	-	-	0.124	(0.317)	-	-
Population	-	-	0.004	(0.009)	-	-	-	-
GDP p.c.	-	-	-0.007	(0.027)	-	-	-	-
Executives-parties	-	-	-	-	-	-	0.056	(0.314)
Federal-unitary	-	-	-	-	-	-	-0.035	(0.302)
Constant	-1.787	(1.812)	-2.230	(2.485)	2.241	(7.973)	0.147	(0.318)
Model Properties								
R^2	0.043		0.052		0.074		0.003	
Adjusted R^2	-0.001		-0.090		-0.068		-0.151	
N	24		24		16		16	

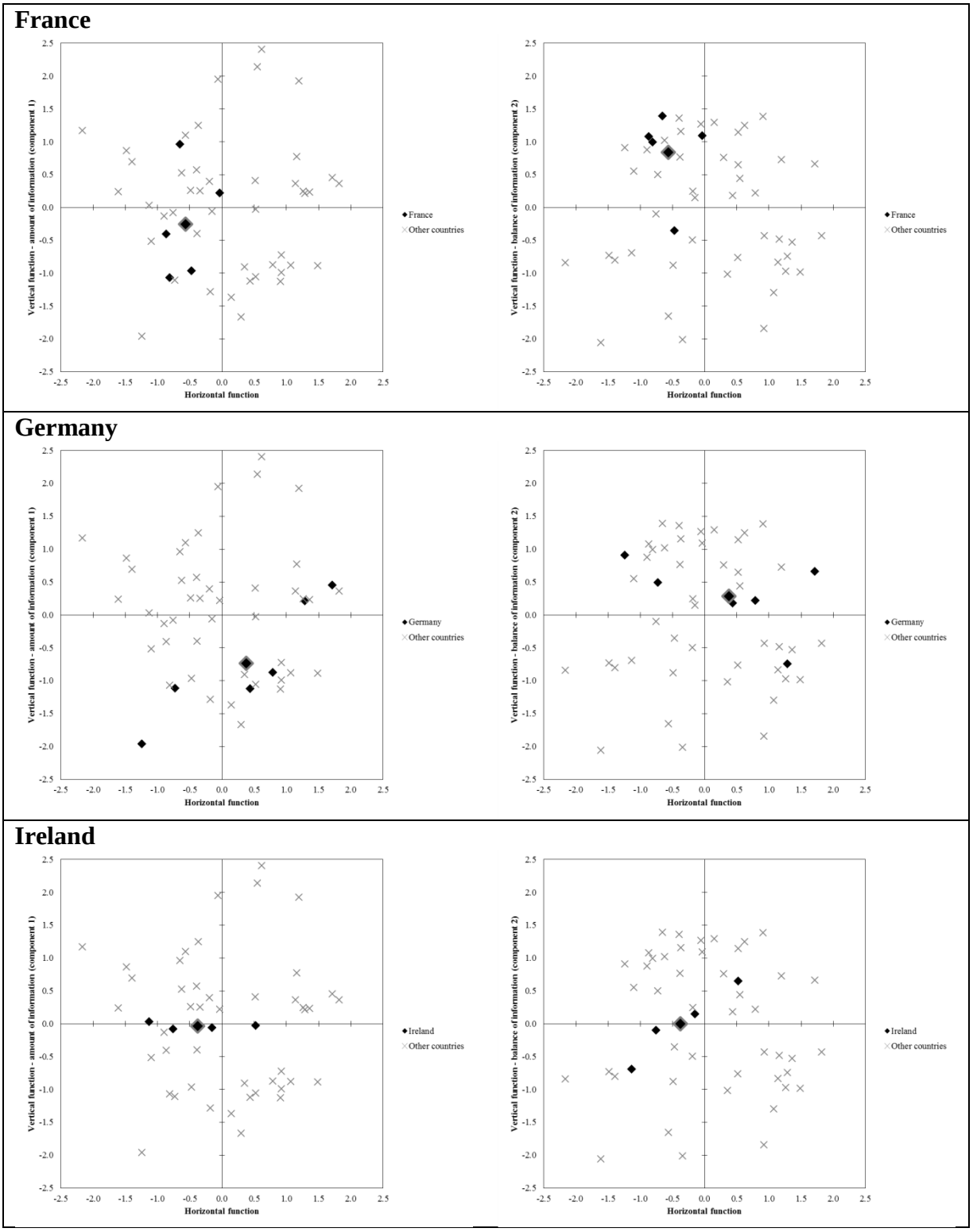
Notes: unstandardized OLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; dependent variable: overall mean values factor scores of the small country sample.

Figure A6.1 *Country-specific scatter plots on the basis of the factor scores in table 6.1*



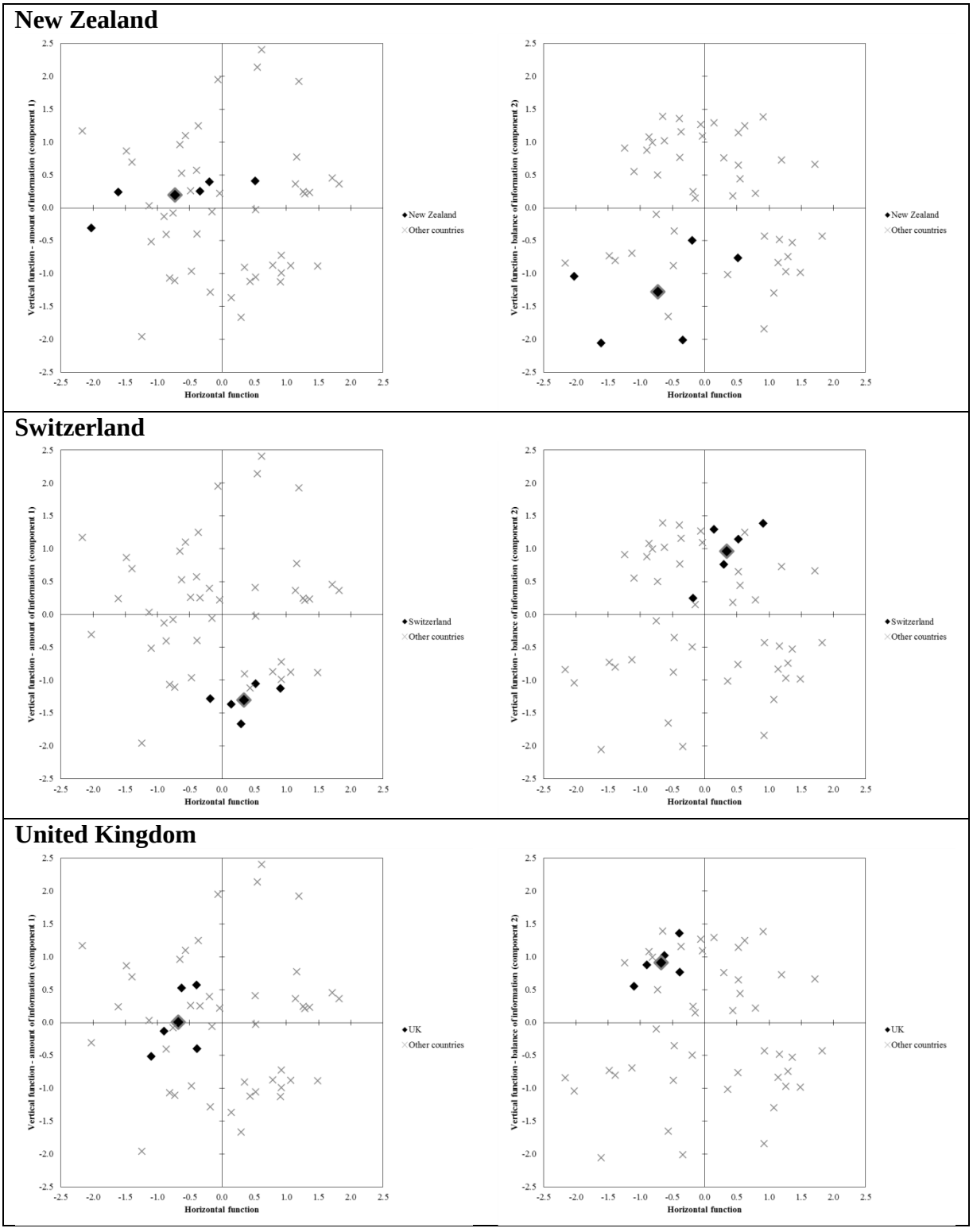
Notes: Country of interest in black; larger symbols with grey shades represent the mean of the newspapers from the respective country; data points from other countries in grey.

Figure A6.1 *Country-specific scatter plots on the basis of the factor scores in table 6.1 (continued)*



Notes: Country of interest in black; larger symbols with grey shades represent the mean of the newspapers from the respective country; data points from other countries in grey.

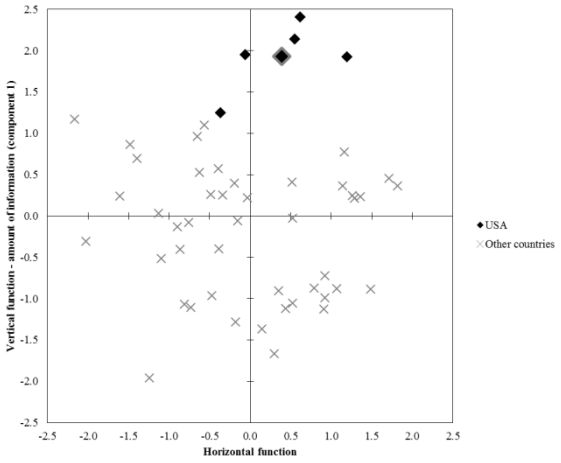
Figure A6.1 *Country-specific scatter plots on the basis of the factor scores in table 6.1 (continued)*

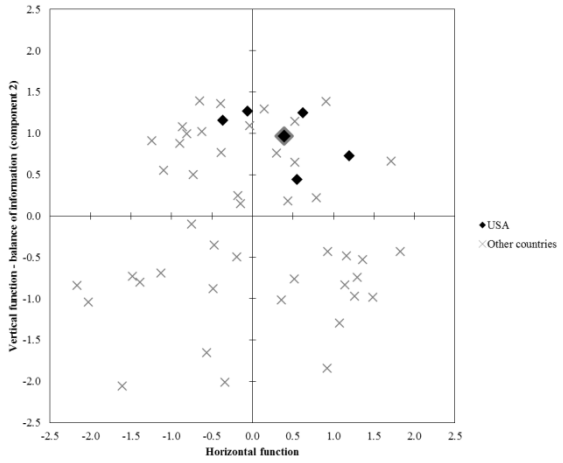


Notes: Country of interest in black; larger symbols with grey shades represent the mean of the newspapers from the respective country; data points from other countries in grey.

Figure A6.1 *Country-specific scatter plots on the basis of the factor scores in table 6.1 (continued)*

United States





Notes: Country of interest in black; larger symbols with grey shades represent the mean of the newspapers from the respective country; data points from other countries in grey.

Table A7.1 *List of indicators used to construct the dependent variables*

Hypothesis	Name	Definition	Source(s)
H1a	Meanpart	Mean level of participation in % of registered electorate in legislative and/or presidential elections and/or national referenda	IDEA; IPU; and others
	Petition	Share of survey respondents who indicate having signed petitions	AsB; AsnB; CSES; EB; EES; ESS; ISS; LAPOP; LB; WVS
	Demons	Share of survey respondents who indicate having attended lawful demonstrations	See "Petition"
H1b	Repturnined	Representative electoral turnout in terms of education and income	See "Petition"
	Repturngeag	Representative electoral turnout in terms of gender and age	See "Petition"
	Repaltined	Representative alternative participation (signing petitions, attending lawful demonstrations) in terms of education and income	See "Petition"
	Repaltgeag	Representative alternative participation (signing petitions, attending lawful demonstrations) in terms of gender and age	See "Petition"
H2	CPI	Corruption Perceptions Index: overall extent of corruption (frequency and/or size of bribes) in the public and political sectors	Transparency International
H3	Union	Trade union density	Golden et al. (2009); ILO; OECD; Visser (2011); and others
	Memenviron	Share of survey respondents indicating that they are member in and/or actively spend time for an environmental or animal rights organization	EB; ESS; LB; WVS
H4	Issuecongr	Congruence between left-right positions of voters and left-right positions of parliamentarians (measured by party positions).	CMP; CSES; EB; EES, ESS; ISS; LAPOP; LB; WVS; and others
	Poldismin	Index of political discrimination of minority groups concerning equal representation (reversed)	MAR

Notes: For more details see the Democracy Barometer codebook (Bühlmann et al. 2011b); the variables names correspond to the ones in the codebook. Sources: AsB = Asia Barometer; AsnB = Asian Barometer; CMP = Comparative Manifestos Project; CSES = Comparative Study of Electoral Systems; EB = Eurobarometer; EES = European Election Study; ESS = European Social Survey; IDEA = International IDEA; ILO = International Labour Organization; IPU = Inter-Parliamentary Union; ISS = International Social Survey; LAPOP = Latin American Public Opinion Project; LB = Latinobarómetro; MAR = Minorities at Risk Project; WVS = World Values Survey.

Table A8.1 *Explaining political participation by media performance (panel RE GLS analysis)*

	Level of participation		***Equality of participation***	
	Coef.	(S.E.)	Coef.	(S.E.)
VF	4.022	(1.294) **	-0.167	(1.455)
HF: QND	2.473	(1.069) *	0.181	(1.187)
HF: QLD	-1.500	(0.762) *	-0.547	(0.889)
Political interest	0.290	(0.063) ***	0.183	(0.074) *
PR system	-3.253	(3.072)	-2.849	(3.327)
Compulsory voting	14.126	(3.336) ***	0.933	(3.447)
Switzerland	-21.771	(10.366) *	-7.716	(10.635)
United States	-13.323	(10.522)	0.348	(10.824)
Period 1995-99	-2.242	(0.903) *	1.007	(1.081)
Period 2000-04	-8.143	(1.468) ***	-0.698	(1.738)
Period 2005-08	-13.455	(1.974) ***	-4.484	(2.316) $^{+}$
Constant	39.874	(4.548) ***	60.527	(5.176) ***
Model Properties				
Wald statistic	168.34		39.73	
R^2	0.477		0.139	
N	188		188	

Notes: unstandardized RE GLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; PR system = proportional representation system; reference category time periods: period 1990-94.

Table A8.2 *Explaining transparency by media performance (panel RE GLS analysis)*

	Static model		***Dynamic model***	
	Coef.	(S.E.)	Coef.	(S.E.)
VF	1.131	(0.204) ***	-	-
HF: QND	0.738	(0.123) ***	-	-
HF: QLD	-0.073	(0.095)	-	-
VF (t-1)	-	-	1.192	(0.244) ***
HF: QND (t-1)	-	-	0.725	(0.146) ***
HF: QLD (t-1)	-	-	-0.078	(0.104)
Media freedom	0.022	(0.009) *	0.043	(0.011) ***
GDP p.c.	0.005	(0.010)	0.006	(0.011)
Period 1995-99	-0.164	(0.121)	-	-
Period 2000-04	-0.551	(0.189) **	-0.253	(0.134) $^{+}$
Period 2005-08	-0.863	(0.247) ***	-0.505	(0.204) *
Constant	4.693	(0.741) ***	3.147	(0.909) ***
Model Properties				
Wald statistic	160.35		216.83	
R^2	0.725		0.767	
N	188		141	

Notes: unstandardized RE GLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; reference category time periods: period 1990-94 (static model) / period 1995-1999 (dynamic model).

Table A8.3 *Explaining civil society strength by media performance (panel RE GLS analysis)*

	Static model		***Dynamic model***	
	Coef.	(S.E.)	Coef.	(S.E.)
VF	4.305	(1.593) **	-	-
HF: QND	3.665	(0.920) ***	-	-
HF: QLD	-2.754	(0.749) ***	-	-
VF (t-1)	-	-	2.524	(1.774)
HF: QND (t-1)	-	-	4.012	(1.023) ***
HF: QLD (t-1)	-	-	-2.083	(0.727) **
Generalized trust	0.058	(0.068)	0.128	(0.068) $^{+}$
GDP p.c.	0.002	(0.077)	0.005	(0.073)
Nordic countries	18.901	(3.917) ***	18.276	(3.982) ***
Former socialist countries	6.286	(2.942) *	1.687	(2.999)
Period 1995-99	-3.482	(0.903) ***	-	-
Period 2000-04	-7.781	(1.442) ***	-3.136	(0.836) ***
Period 2005-08	-11.391	(1.853) ***	-5.598	(1.339) ***
Constant	25.158	(3.173) ***	19.367	(3.261) ***
Model Properties				
Wald statistic	189.86		154.37	
R^2	0.636		0.665	
N	188		141	

Notes: unstandardized RE GLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; Nordic countries = value 1 for Denmark, Finland, Iceland, Norway and Sweden, value 0 otherwise; Socialist past = value 1 for Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Slovakia and Slovenia, value 0 otherwise; reference category time periods: period 1990-94 (static model) / period 1995-1999 (dynamic model).

Table A8.4 *Explaining representation by media performance (panel RE GLS analysis)*

	Static model		***Dynamic model***	
	Coef.	(S.E.)	Coef.	(S.E.)
VF	8.492	(1.914) ***	-	-
HF: QND	5.677	(1.585) ***	-	-
HF: QLD	1.857	(1.273)	-	-
VF (t-1)	-	-	9.565	(2.450) ***
HF: QND (t-1)	-	-	6.433	(1.888) ***
HF: QLD (t-1)	-	-	4.711	(1.382) ***
Political Interest	-0.209	(0.096) *	-0.170	(0.121)
PR system	6.803	(4.647)	4.755	(5.690)
Period 1995-99	1.109	(1.492)	-	-
Period 2000-04	-1.777	(2.277)	-2.255	(1.625)
Period 2005-08	-6.578	(2.990) *	-7.402	(2.662) **
Constant	74.782	(6.547) ***	78.724	(7.972) ***
Model Properties				
Wald statistic	38.62		34.75	
R^2	0.256		0.231	
N	188		141	

Notes: unstandardized RE GLS estimators; *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, $^{+}$ $p \leq 0.10$; VF = vertical media function; HF = horizontal media function; QND = quantitative media diversity; QLD = qualitative media diversity; reference category time periods: period 1990-94 (static model) / period 1995-1999 (dynamic model).

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Curriculum Vitae

Education

07/2007 – 09/2012	PhD Studies in Political Science, University of Zurich
02/2010 – 01/2011	Visiting Scholar at the Columbia University, New York
10/2001 – 06/2007	M.A. Communication Science (University of Zurich) 1st minor: Political Science 2nd minor: Cultural Anthropology
1995 – 2000	High school (focus: modern languages), Zurich-Oerlikon

Professional Experience

Since 09/2013	Scientific advisor State Secretariat for Education, Research and Innovation, Bern Unit: EU Framework Programmes
08/2012 – 08/2013	Fellowship Science and Politics, Swiss Parliamentary Services, Bern Scientific collaborator within the Committees for Science, Education and Culture (CSEC) and for Economic Affairs and Taxation (CEAT) (see www.politikstipendien.ch)
2000 – 2007	Office, administration and accounting RRP Architects, Zurich (part time)

Acadmic Experience

06/2007 – 02/2012	Project collaborator / PhD student: SNSF Project: „Democracy Barometer“ (directed by Prof. Wolfgang Merkel / Prof. Daniel Bochsler) NCCR Democracy, University of Zurich / Centre for Democracy Studies Aarau (see www.democracybarometer.org)
02 – 05/2011 + 02 – 06/2012	Lecturer: Course: Introduction to comparative democracy research Department of Political Science, University of Zurich
12/2007 – 04/2011	Various talks at seminars and academic conferences in Switzerland and abroad

02/2006 – 05/2007	Research assistant to Prof. Wolfgang Merkel and Dr. Marc Bühlmann SNSF Project: „Democracy Barometer“ NCCR Democracy, University of Zurich
03 – 12/2005	Research assistant to Prof. Sibylle Hardmeier SNSF Project: „Do opinion polls enhance political representation? A comparative approach“ Department of Political Science, University of Zurich

Scholarships and Awards

02/2010	Scholarship for prospective researchers of the Swiss National Science Foundation. Purpose: 1-year research stay at the Columbia University, New York
09/2008 + 10/2011	Knowledge Transfer Award of the NCCR Democracy, University of Zurich

Further Education

11/2012	Media training for researchers MAZ – Die Schweizer Journalistenschule, Lucerne
03/2011	Behavior workshop „Civil courage” Prof. Veronika Brandstätter-Morawietz University of Zurich
09 – 12/2010	Seminar „Making Publics” Prof. Michael Schudson Columbia University, New York
07/2008	Course on „Causal Models and Structural Equations“ Prof. Peter Schmidt Summer School in Social Science Data Analysis, University of Essex
02 – 05/2008	Course on „Quantitative Analysis” Prof. Simon Hug University of Zurich
10 – 11/2007	English course on „Writing Research Papers for Publication (Arts & Social Sciences)” Dr. Wendy Swanson University of Zurich
10/2005	Workshop on „Qualitative Comparative Analysis (QCA)“ Dr. Carsten Q. Schneider Social Science Research Center, Berlin

Further activities

06 – 08/2011	Country expert for Switzerland for the international research project „Varieties of Democracy (V♦Dem)" of the Quality of Government Institute, University of Gothenburg
06/2008 – 09/2009	Deputy coordinator of the NCCR peer group *Stepping Stone*, which promotes the advancement of women within academia and organizes various related activities
09/2008 + 09/2009	Participation in the „Researcher's night" of the University of Zurich and the ETH Zurich
03/2008	Participation in the „Parcours of knowledge", an exhibition of interdisciplinary research in the context of the 175th anniversary of the University of Zurich

Skills

Languages:	- German (mother tongue) - English (fluent, written and spoken) - French (fluent, written and spoken) - Spanish (good, written and spoken) - Italian (basic) - Latin (intermediate certificate)
Software:	- Office: Word, Excel, Access, PowerPoint, OpenOffice - Statistical software: Amos, fsQCA, MLwiN, R, SPSS, Stata - Graphic design: Photoshop